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Uruguay^{The}Round

Textiles Trade
and the
Developing Countries

Eliminating
the Multi-Fibre Arrangement
in the 1990s

Carl B. Hamilton
editor

A World Bank Publication

*Textiles Trade
and the
Developing Countries*

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A project sponsored by the Swedish International Development Authority (SIDA), the Rockefeller Foundation, and the World Bank.

This book resulted from a workshop on "International Textile Trade, the Multi-Fibre Arrangement and the Uruguay Round," held in Stockholm, June 1989, organized by the Institute for International Economic Studies, University of Stockholm, and the Swedish Centre for Business and Policy Studies (SNS), Stockholm.

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Preface

The chapters of this volume were originally presented at a meeting at Thoresta, Stockholm, in June 1989. The purpose of the meeting was to expose national decision makers on trade policy and key negotiators at the GATT's Uruguay Round negotiations in Geneva, to facts, analyses, and conclusions of policy-oriented economists working on world trade issues. With this objective and target group in mind, it is clear why the set of authors, and the style of the papers are not quite like those of a standard academic conference. Thanks to the efforts of many individuals and organizations, the meeting turned out to be a success, although the final test of that is whether the Multi-Fibre Arrangement will in fact be abolished, of course.

The meeting and this book would have been impossible without Lars Anell (Sweden's Ambassador in Geneva) and Wolfgang Siebeck, until recently the World Bank's representative in Geneva; and the sponsorship of the Swedish International Development Authority (SIDA), in particular its Director General, Carl Tham, and Enrique Ganuza; The Rockefeller Foundation and Catherine Gwin; and the World Bank, in particular Paul Meo and Refik Erzan.

The Thoresta meeting was organized in an excellent way. The credit for that goes to Gunnar P. Eliasson, Marianne Schiller and Eva Anderson, all at The Centre for Business and Policy Studies (SNS), and Edda Liljenroth, my secretary at the Institute for International Economic Studies (IIES). Michael Sohlman and Åke Weyler were also supportive. Refik Erzan and Paula Holmes of the World Bank, and Shole Blom, Edda Liljenroth and Molly Åkerlund of IIES, Torgny Wadensjö of SNS, played

essential roles in the efforts to transform the conference papers into book chapters. Finally, thanks goes to Lena Hamilton for her firm support of free trade in textiles and clothing.

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Stockholm, November 20, 1989

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Acronyms and Initials

| | |
|--------|---|
| ACP | African, Caribbean, and Pacific |
| ASEAN | Association of South East Asian Nations |
| CBI | Caribbean Basin Initiative |
| EC | European Community |
| EFTA | European Free Trade Association |
| GATT | General Agreement on Tariffs and Trade |
| GDP | Gross domestic product |
| GNP | Gross national product |
| LTA | Long-Term Arrangement |
| MFA | Multi-Fibre Arrangement |
| MFN | Most favored nation |
| MTN | Multilateral trade negotiations |
| NIC | Newly industrialized country |
| OECD | Organisation for Economic Co-operation and Development |
| SITC | Standard International Trade Classification |
| STA | Short-Term Arrangement |
| TSB | Textiles Surveillance Body |
| UNCTAD | United Nations Conference on Trade and Development |
| VER | Voluntary export restraint |

1

Introduction

Carl B. Hamilton and Will Martin

The papers contained in this volume deal with two central issues. The first is the positive question of the effects of the Multifibre Arrangement (MFA) on the developing countries. The second is the normative question of how to phase out the MFA and integrate textiles and clothing trade in the normal GATT rules in the context of the current Uruguay Round of multilateral trade negotiations.

The target group for the papers in this volume is not just—or even primarily—the academic community. The papers were originally presented in June 1989 at a workshop for policy-oriented trade economists, decisionmakers and key negotiators on trade policy from Geneva and capitals of developing and developed countries.

The major effects of the MFA considered are the direct, trade-restricting effects of the bilateral quotas, their effects on prices of textiles and clothing in restricted and unrestricted markets, and hence on national and global welfare; the effects on fiber trade; the various inefficiencies introduced by the MFA and its administration and, finally, the implications of the arrangement for growth in the developing economies. These effects are discussed at a general level in the first part of the volume. The second part contains a discussion of the effects of the MFA on particular countries and groups of countries.

In considering the options for reforming the MFA, it was recognized that the successive arrangements reflected the pressures placed on governments by powerful interest groups, and that these pressures had to be taken into account in formulating proposals for policy reform. In this context, a wide range of reform proposals was considered. These proposals are presented in part 3.

Effects of the MFA

The MFA restricts the volumes of most imported textile and clothing products brought into North America and Western Europe from developing countries. Because of the intentional complexity and nontransparency with which importing country governments have formulated the MFA, there has always been considerable difficulty estimating and evaluating the effects of the arrangements. (This is true also of existing Japanese nontariff measures applied outside the MFA.) However, the papers presented in this volume provide a great deal of new information on the restrictiveness of the MFA.

A key question for the individual developing countries in formulating their negotiating stances on the MFA is whether they gain or lose from its operation. Three of the papers in this volume present evidence on the static effects of the MFA relevant to this issue. The paper by Trela and Whalley (chapter 2) presents estimates of the welfare consequences for each country of removing both the bilateral MFA quotas and developed country tariffs. They conclude that the gains to the developing economies as a whole are likely to be very large, perhaps of the order of US\$8 billion per annum, and that virtually all developing economies, including such major exporters as China, Republic of Korea, Taiwan, Brazil, Hungary and Turkey would gain substantially from this liberalization.

Martin and Supachalasai in chapter 3 provide a simple framework for evaluating the impact of the MFA on the developing countries, illustrating the importance of the offsetting rises in the prices of restricted products and declines in residual world market prices. While there remains considerable uncertainty about the exact magnitude of the effects, they conclude that the most likely effect is a substantial loss to the developing countries, perhaps of the order of \$2 billion, or around 10 percent of the value of total clothing exports from the developing countries.

The paper by Erzan, Goto and Holmes (chapter 4) presents evidence that the MFA effectively restricts exports from the developing countries as a group, and that the unconstrained, and less established, developing country exporters gain only marginal increases in export volumes through trade diversion from the constraints on the established developing country exporters.

Erzan, Goto and Holmes also provide new evidence on the restrictive effects of the MFA. Their data indicate that the MFA is becoming more restrictive, with average quota utilization rates rising substantially through the 1980s, and that the share of quotas which impose a binding constraint is also increasing. They also find that the volume growth of developing country exports to MFA importers has been much slower for those categories covered by binding quotas than for imports not covered

by such quotas. Their data also point to high rates of increase in unit values for goods covered by the binding quotas relative to other textile and clothing items, reflecting a combination of price increase and product upgrading response by exporting country producers.

Kumar and Khanna in chapter 8 provide new information on the restrictive effects of the MFA on an important, newly emerging exporter—India. They show that as a result of domestic policy changes in India, in recent years apparel has increased rapidly as a share of total exports, and that quota utilization rates have risen markedly. They note that simple quota utilization rates may underestimate the restrictive effects of the MFA. Because, in some cases, aggregate limits are more restrictive than individual category limits, the quota may be fully binding with a utilization rate well below the average of the individual quota utilization rates.

The papers by Cable (chapter 5) and Raffaelli (chapter 11) highlight the less tangible, but undoubtedly important, trade-restricting effects of the MFA. Among exporters under binding restrictions it discourages investment not only in areas currently covered by quotas, but also in areas that, if successfully developed, would be likely to face quotas. Given the close monitoring of import levels by pressure groups in developed countries for protecting textile sector interests, and the potential to delay and hamper imports through requests for consultations and other administrative procedures, these impediments due to the shadow, rather than the substance, of the MFA are clearly important.

Any effective import quota must inevitably raise the price of imports entering under the quota relative to the price prevailing in the absence of the quota. In contrast with a uniform tariff, however, the bilateral quotas imposed under the MFA, for the same country of destination, may have different price-increasing effects between countries of origin, as well as between products. Even measuring the price-increasing effects has proved relatively difficult, with particularly heavy reliance being placed on estimates from Hong Kong, where quotas have been relatively freely traded.

In this volume, the paper by Trela and Whalley uses estimates of the price-increasing effects of quotas based on the most comprehensive study of export quota prices in Hong Kong. These estimates vary by product category and by year, but averaged 42 percent for textiles and clothing in 1983–84, and 14 percent to the European Community, 1981–83. In chapter 7 on the Republic of Korea, Hamilton and Kim, using the same data set, indirectly calculate the tariff equivalents of the United States' MFA restrictions on the Republic of Korea to rise from 30 to 101 percent between 1982 and 1984, with an average of 44 percent. Kumar and Khanna present new information on the price-increasing effects of the bilateral restrictions based on quota auctions in India as recent as

early 1989. They report average tariff equivalent of quotas of 32 percent for the United States, 28 percent for the European Community, 19 percent for Sweden, and 14 percent for Canada. As for Hong Kong, their results also point to considerable price volatility from month to month.

Clearly, the evidence presented in this volume suggests that the MFA quotas are binding in many important categories, and that these binding quotas do have the effect of raising domestic prices in the restricted markets. Since the quotas under the MFA are allocated to the developing country exporters, the rents associated with the quotas are a potential source of gains to the developing countries. At the same time, the restrictions cause many developing countries to divert some of their exports from the now restricted markets into the remaining unrestricted markets, either in the rest of the world or in unrestricted products supplied to the developed countries.

The numerical estimates presented in these papers, however, do not consider all of the inefficiencies induced by the MFA. Only the Trela and Whalley study, for instance, takes into account the inefficiencies induced by distortions between countries in the location of production and particularly the initiation of production in high-cost countries. Another factor not considered in the formal modeling work was the distorting effect of the various quota allocation schemes used by a many of the exporting countries.

Finally, several types of costs related to the countries' adjustments to the MFA, to the costs of quota administration, and to negotiations were ignored in the formal modeling work. The nature of these effects is, however, explored in other papers in this volume. Cable considers these issues for the Commonwealth countries, while Kumar and Khanna discuss the case of India, and Hamilton and Kim the case of the Republic of Korea. Raffaelli discusses them both for Latin America and in the context of the MFA as a whole.

From a developmental point of view the effects of the MFA on fiber producers is also important, although not much investigated by economic researchers so far. As pointed out by Anderson in chapter 6, the MFA and its predecessors—The Short and The Long-Term Cotton Agreements—gave incentives in the 1960s to a switch from natural fibers, particularly cotton, to synthetic fibers. Secondly, this effect, and other aspects of the MFA, may have been important for traditional fiber-producing countries in Africa where natural fibers can constitute a large part of total exports. (For example, the share of all types of fibers in total exports of Mali, Chad and Burkina Faso was as much as 68, 94 and 31 percent, respectively, in 1985.)

Even when fully evaluated, the static welfare losses and inefficiencies discussed above may reflect only part of the impact of the MFA. Trela and Whalley, Cable, Anderson, and Hamilton and Kim all discuss the

effects in a more general dynamic context of development and stages of economic growth. It is noted that textiles, and particularly apparel, have accounted for an important part of industrial growth at a relatively early stage of the industrialization process. Trade restrictions under the MFA which inhibit the full development of the textile sector may seriously retard this crucial stage in economic development, a point particularly stressed by Anderson with regard to China. Even where the MFA—through “quota jumping” from exporters under binding restrictions—encourages the development of a textile or clothing industry in new locations, Cable, among other reported observations, notes that the resulting industry is likely to be high-cost and uncompetitive when the initial stimulus is withdrawn or the quota limit reached.

Paths to Reform

The current round of GATT negotiations provides considerable scope for reform of the MFA. In April 1989, ministers agreed that

substantive negotiations will begin . . . in order to reach agreement within the time-frame of the Uruguay Round [until December 1990] on modalities for the integration of this sector into GATT, in accordance with the negotiating objective; . . . such modalities for the process of integration into GATT on the basis of strengthened GATT rules and disciplines should *inter alia* cover the *phasing out of restrictions under the Multi-fibre Arrangement and other restrictions on textiles and clothing not consistent with GATT rules and disciplines*, the time-span for such a process of integration, and the progressive character of this process which should commence following the conclusion of the negotiations in 1990 [our emphasis].

How should this be done? This was the task confronting the authors of the papers of the last section of this volume!

An important feature of the discussion of proposals for reform is the recognition that private interest groups have played a major role in formulating the current policies, and that these interests need to be considered in developing proposals for reform. In chapter 9 Wolf displays a considerable insight into this, and he stresses that a particular approach is unlikely to be selected unless it is broadly consistent with the interests of important countries and groups involved in the process.

Since the interaction of competing interest groups in the past resulted in the recurrent restoration of the MFAs up to the current MFA IV, it seems rather unlikely that any of the current proposals for reform would be adopted unless the balance between the competing interest groups

has changed. On this issue, the papers in this volume, as well as the discussion at the workshop, pointed to a few potentially important developments.

One such development pointed out in the papers by Trela and Whalley, Anderson, and Hamilton and Kim is the tendency for textiles and clothing to decline relatively in importance in many of the developed countries and some newly industrialized countries (NICs), like the Republic of Korea, as well as a rapid decline in the absolute and relative size and competitiveness of their apparel industries. The decision by Sweden in 1988 and Norway in 1989 to abandon all quantitative restrictions on textiles and clothing imports when the present MFA expires may reflect a wider change in the relative strength of the apparel sector and the importers as interest groups in similarly advanced countries.

Another potentially important change relates to the countries that are now emerging as highly competitive exporters. The studies by Kumar and Khanna and Anderson describe the increasing effect of restrictions imposed on India and China by the MFA. These two countries are likely to have more "clout" at the bargaining table than the major textile exporters of the last decades—Hong Kong, Korea and Taiwan—especially if India and China form a coalition with countries like Brazil, Indonesia and fast-growing Thailand. These emerging exporters also have a greater incentive to oppose continuation of the MFA in its present form because of the arrangement's strong discrimination in favor of countries with an established "past performance" as exporters.

Finally, an important change in this round of negotiations on textile and clothing trade is its inclusion within the wider GATT round. If the developing countries choose to make concessions in other areas, they may have considerable leverage in obtaining reforms within the MFA.

As Wolf and Bagchi suggest in chapters 9 and 10, the reform proposals can be divided into two groups: those based on liberalizing the MFA in its present form and those which involve moving immediately to a GATT-based system. (There is also ample room for hybrid proposals.)

The proposals for liberalization within an MFA context before returning to normal GATT rules typically involve expansion of the bilateral quotas prevailing under the MFA. When, finally, the quotas have all been expanded to the point where they are no longer a constraint, trade in textiles and clothing will automatically fall under standard GATT principles. These proposals have the important advantage of continuity with current arrangements. Further, there is considerable flexibility under such a general proposal, a flexibility which is evident from the wide range of options considered, especially in Bagchi's comprehensive taxonomy.

The more direct approaches to returning textile and clothing trade to the MFA generally involve a move from the current bilateral quotas to

global quotas, to tariff-based systems, or to a combination of these systems, such as penalty tariffs when imports exceed a predetermined volume. All of these options involve a marked change from current arrangements. In the workshop discussions there was a marked and unanimous resistance on the part of policymakers and negotiators to any idea to develop a new institutional structure—although meant to be transitional only.

However, the proposal discussed in chapter 12 by Sampson and Takacs could potentially provide for continuity with current arrangements and at the same time for flexibility to negotiators' wishes in important parameters such as the rate of adjustment to a normal GATT system. Exploiting the full flexibility inherent in the Sampson-Takacs proposal would face the risk of introducing too much complexity for agreement to be reached. If, however, the approach was kept simple by maintaining as much continuity as possible with current arrangements, it could provide a promising path to reform of the current arrangements.

The objective of returning textiles and clothing to the normal workings of GATT is an important one, and widely seen as desirable. One important qualification to proposals to achieve this must, however, be that the effectiveness of the general system not be compromised by special exceptions, or "safeguard" arrangements, made in the case of textiles and clothing. Wolf points to the very real risk of the resulting trading system having the "body of GATT but the heart of the MFA."

Irreversibility, Simplicity, Flexibility and Some Degree of Continuity is the Formula for Abolishing the MFA

From the discussion of the alternatives presented in the papers contained in this volume, and the discussion at the workshop, four criteria for successful policy reform were identified: simplicity; flexibility to balance competing political pressures; some degree of continuity with current arrangements; and, last and most important, *a strong commitment to irreversible reforms*.

Another theme that ran through much of the discussion was that at this point in time we have "a golden opportunity". Either we abandon the MFA now—or the world will be stuck with it for another few decades.

It is hoped that the facts and reasoning presented in this volume will serve those who try to push rational arguments and global distributional developmental considerations in public and political discussions, especially in the importing countries. The volume should also serve as a basis for actual proposals to improve the trading system for textiles and clothing within the context of a strengthened GATT system.

Part I

*Global
Perspectives*

2

Unraveling the Threads of the MFA

Irene Trela and John Whalley

The aim of this paper is to lay out for negotiators in the working group on textiles and clothing in the Uruguay Round what some of the possible economic effects of the Multi-Fibre Arrangement (the MFA) may be. We draw on recent literature as far as we are able, but emphasize that most available quantitative work focuses on the effects on developed countries of trade restraints on textiles and clothing (on welfare, employment and trade volumes). Discussion of the effects on developing countries is often confined to conjecture, which over time has seemed to grow into accepted verbal folklore.

We highlight the range of potential effects of the MFA on developing countries, including traditional trade and welfare effects, but also relocation of manufacture from one developing country to another, quality upgrading, internal developing country resource allocation effects via quota allocation schemes, and effects on the growth process. Most of these further effects are so little studied that it makes it difficult to offer conclusive statements as to what the MFA actually does to economic performance of individual countries. We also summarize some recent modeling work of our own which sheds light on some of these issues.

We emphasize the many paradoxes represented by the MFA. It is often seen as one of the most pernicious trade restrictions in the artillery of product-specific measures used by developed countries. Its coverage of products and countries grows with each MFA renegotiation, and its implementation seems to be continually tightened. At the same time, data on quota utilization rates are surprisingly low for a number of countries. Successful exporters such as Hong Kong, Republic of Korea, and Taiwan have consistently shown growth rates of textile and clothing

exports considerably in excess of their quota growth allowed under the MFA, and the high GDP growth in the export-led Asian newly industrialized countries (NICs) does not seem to have been significantly hindered by such export restraints.¹ Moreover, surprisingly large adjustments in the textile and clothing sector seem to have occurred in a number of the OECD countries during the period in which restrictions have operated.

Our conclusions are: first, that there is considerable uncertainty as to what the effects of the MFA actually are; second, that there is verbal folklore which has evolved as to some of the alleged effects which, on closer scrutiny, may be no more supportable than claims of opposite effects; and third, that more work is needed on all fronts, and especially on the effects of the MFA on the growth process in developing countries.

This may all seem unhelpful to trade negotiators. However, our bottom line emphasizes that developing country negotiators in the Uruguay Round also need to determine what their national interest is in formulating their position in this group. It may be that on systemic grounds they favor nonrenewal of the MFA, since as smaller countries they have an interest in returning all derogations from GATT to existing GATT disciplines and preventing any new departures from clear system rules. They may, therefore, accept the proposition that whatever the effects of the MFA actually are, textiles and clothing is the place to start in enforcing multilateral disciplines. Alternatively, they may believe that industrialization involves a staged process, with production moving first into textiles and clothing and then on to steel and other products, and that removing trade restrictions on textiles and clothing is important for them on developmental grounds. Thus on the basis of country interest alone (discounting any systemic interest) they might be persuaded that nonrenewal of the MFA is the course to take.

We do not say this latter position is wrong for any individual country, but we do caution that it is a matter of judgment how severe the need is and how much negotiating capital should be used up on it. It is not clear exactly how restrictive of trade these measures are, how permanent they have become, nor how far they retard growth. Also, inward foreign investment into lower-income developing countries from Korea, Hong Kong, and Taiwan induced by trade restrictions has benefited these countries.

None of the above says that developing countries will not benefit from a removal of the MFA restrictions, but the size of the effect on both the trade and the GDP performance of most currently participating developing countries cannot be accurately determined on the basis of existing research. The systemic interest of moving the trading system toward more clearly enforced nondiscriminatory trade rules may be an equally important concern.

Some Background on the MFA

What the MFA Is

The MFA contains a series of bilaterally negotiated quota restrictions covering trade in both textiles and clothing between individual developed and developing countries.² It is renegotiated every few years under the auspices of the GATT Committee on Textiles.³ Its GATT incompatibility has never been tested through the dispute settlement procedures of the GATT, but it is clearly inconsistent with several GATT articles (including Article 1, nondiscrimination, and Article 24, bilateral trade agreements). There are currently nine developed country participants in the MFA: the United States, Canada, the European Community (EC), Austria, Finland, Norway, Sweden, Japan and Switzerland, although the latter two do not currently apply the MFA restrictions on imports.⁴ Developing country participants in the MFA are more numerous, currently numbering thirty-three.⁵

The origins of the MFA lie in the Short-Term Arrangement Regarding International Trade in Cotton Textiles (STA) negotiated between the United States and Japan in 1961, which grew into a Long-Term Agreement (LTA) in 1962, lasting (with extensions) until the beginning of the MFA in 1974. Through three successive renegotiations of the MFA, it has grown to encompass a successively wider range of products and countries. The spread of these restrictions has been part of a wider growth in product-specific trade restrictions used by developed countries against developing countries in the 1970s and 1980s.⁶

Like the trade restrictions which preceded it in the 1960s, the MFA was intended to provide temporary protection for domestic industries in developed countries. The aim was to allow them time to adjust to foreign competition, while at the same time giving exporters orderly access to developed country markets. This was considered as advantageous by developing countries relative to having their exports subjected to a series of more ad hoc and restrictive controls. Thus, at its inception the main objective of the MFA was stated "as achieving the expansion of trade, the reduction of barriers to such trade, and the progressive liberalization of world trade in textile products."⁷

Although the first MFA extended trade restrictions to noncotton textiles because of cotton textile exporters' diversification into wool and man-made fiber products, it was viewed as less restrictive than the previous LTA in that it incorporated compensatory liberalizing moves. These included a 6 percent annual growth for quotas (up from 5 percent under the LTA) and various provisions to make the quotas more flexible. These included a "swing" provision which allowed an exporting country to transfer a quota between product categories in the same year; an

allowance for countries to "carry over" up to 10 percent of the unused portion of the previous year's quota; and an advance utilization ("carry forward") of up to 5 percent from the following year's quota. These flexibility provisions were seen as important because they partially offset the restrictive effects of the quota system, and they gave exporters room to respond to changing market demand conditions.

After twenty-seven years of "temporary" protection outside of GATT rules, however, there is still little evidence that trade in textiles and clothing is currently any closer to a return to GATT disciplines.⁸ Instead of liberalizing textile and clothing trade, successive bilateral agreements reached under the MFA appear to have grown progressively more restrictive.⁹ Annual growth rates for quotas have generally been below 6 percent; fiber coverage has been extended to include silk blends and other vegetable fibers; country coverage has been extended to include many small suppliers, and flexibility provisions have been reduced. "Anti-surge" mechanisms have also been included to limit full utilization of previously underutilized quotas to protect developed country markets from rapid increases in imports.

Trade in Textiles and Clothing

The significance of trade restrictions under the MFA for developing countries' trade is immediately apparent once the country pattern of textile and clothing trade is understood. In 1986, world exports of textiles and clothing were \$128 billion (\$66.25 billion in textiles and \$61.80 billion in clothing), of which exports by developed market economies accounted for \$71 billion (55 percent), exports by developing countries for \$43 billion (34 percent), and exports by the eastern trading area for \$14 billion (11 percent).¹⁰ Worldwide, exports of all manufactured goods totalled \$1,431 billion in 1986, out of a total of \$2,118.70 billion for all merchandise exports.

In other words, trade in textiles and clothing alone accounted for 9 percent of world trade in manufactures and for 6 percent of world, merchandise trade. As Table 2-1 shows, in 1986 the developing countries' share in world exports of textiles and clothing was 33.4 percent. The developing country shares of world exports of textiles and clothing, and of developed country imports, have also grown significantly over the postwar years. Textiles and clothing exports are then clearly of major importance to developing countries.

Table 2-2 also indicates that there have been major changes in the composition of this trade. Textiles represent a sharply declining share of developing country manufactured exports. In contrast, the share of clothing in manufactured exports has increased considerably.

Table 2-1 Developing Countries' Share of World Trade in Textiles and Clothing, 1955-86
(Percent)

| Value | 1955 | 1965 | 1975 | 1976 | 1977 | 1978 | 1979 | 1984 | 1986 |
|--|------|------|------|------|------|------|------|------|------|
| Developing countries' share of world exports | 13.4 | 17.2 | 22.8 | 26.8 | 25.8 | 26.1 | n.a. | 34.5 | 33.4 |
| Developing countries' share of developed country imports | 10.2 | 15.8 | 21.7 | 26.8 | 25.6 | 26.1 | 25.4 | 34.4 | 31.3 |

n.a. Not available.

Source: 1955-79: Cable (1981), Table 3; 1984-86: GATT (1987a), Table A12.

Table 2-2 Share of Textiles and Clothing in Exports of Manufactures and in Total Merchandise Exports by Main Areas, 1955-86
(Percent)

| | 1955 | 1963 | 1973 | 1982 | 1986 |
|--|------|------|------|------|------|
| Textiles | | | | | |
| Share of textiles in exports of manufactures by: | | | | | |
| World | 11.3 | 8.7 | 6.7 | 4.9 | 4.6 |
| Developed countries | 10.3 | 7.8 | 5.8 | 3.8 | 3.8 |
| Developing countries | 34.3 | 30.1 | 18.8 | 10.6 | 9.7 |
| Eastern trading area | 6.1 | 5.5 | 5.1 | 5.4 | 5.4 |
| Clothing | | | | | |
| Share of clothing in exports of manufactures by: | | | | | |
| World | 1.9 | 2.7 | 3.6 | 3.9 | 4.3 |
| Developed countries | 1.6 | 2.2 | 2.3 | 1.9 | 2.5 |
| Developing countries | 4.0 | 7.8 | 14.2 | 13.6 | 15.1 |
| Eastern trading area | 3.4 | 3.7 | 5.1 | 5.8 | 6.7 |

Note: Data in table exclude trade in petroleum.

Source: 1955-82: GATT (1984), tables 2.12 and 2.13; 1986: GATT (1987a), Table A12.

Table 2-3, however, clearly emphasizes that even with this sharp growth, inter-developed-country trade (which includes intra-EC trade) still accounts for about half of world trade in textiles and a major component of trade in clothing (a little more than 40 percent). On the

Table 2-3 Textile and Clothing Exports, by Geographic Area, 1986
(Billions of dollars and percentages in parentheses)

| Origin/ Destination | Developed Countries | Developing Countries | Eastern Trading Area | World |
|----------------------------------|------------------------|-------------------------|----------------------------|---------------|
| Textiles | | | | |
| Developed countries ^a | 33.2 (77) | 8.0 (18) | 2.0 (5) | 43.2 (100) |
| Developing countries | 7.1 (43) | 6.9 (42) | 2.5 (15) | 16.5 (100) |
| Eastern trading area | 2.4 (35) | 2.8 (42) | 1.5 (23) | 6.7 (100) |
| World | 2.7 | 17.7 | 6.0 | 66.4 |
| Clothing | | | | |
| Developed countries ^b | 25.2 (90) | 2.1 (7) | 0.8 (3) | 28.1 (100) |
| Developing countries | 2.7 (89) | 2.1 (8) | 0.6 (3) | 5.4 (100) |
| Eastern trading area | 4.3 (51) | 1.3 (16) | 2.7 (33) | 8.3 (100) |
| World | 52.2 | 5.5 | 4.1 | 61.8 |

a. If intra-EC trade is excluded, trade among developed countries is \$14.7 billion rather than \$33.2 billion.

b. If intra-EC trade is excluded, trade among developed countries is \$11.2 billion rather than \$25.2 billion.

Source: GATT (1987a), Table A12.

export side, Table 2-4 shows that textile and clothing exports are also heavily concentrated geographically. Clothing exports are far more concentrated than textiles, with Korea, Hong Kong and Taiwan accounting for over 60 percent of exports to OECD countries.

Growth rates for textile and clothing imports by developed countries from developing countries are shown in Table 2-5. This table suggests that the MFA I and the MFA II slowed the growth of developed country imports of textiles and clothing. This was most striking for the EC in the late 1970s with the negotiation of new restrictions under the MFA II (also see Cline 1987). It was this which also gave rise to severe criticism by developing countries of the protectionist character of the MFA. Table 2-5, however, also shows a resumption of higher import growth in the 1980s, especially during the first three years of the MFA III, 1982-84. Cline (1987) shows this to be particularly the case for the United States in 1983 and 1984. According to his data, over this period annual import growth in the United States averaged 22 percent for textiles in square-yard equivalent (SYE) terms and 13 percent for clothing (in SYE). Other data from Cline (1987), reported here as Table 2-6, also show that U.S. imports of textiles from principal suppliers increased in physical quan-

Table 2-4 Textile and Clothing Imports by OECD Countries from Selected Developing Economy Exporters
(Percentage shares)

| Destination | Textiles | | Clothing | |
|------------------------------------|----------|-------|----------|-------|
| | 1973 | 1984 | 1973 | 1984 |
| Asian Big Three (1) | 29.3 | 26.8 | 67.7 | 61.1 |
| China | 11.6 | 17.8 | 2.6 | 8.7 |
| Other Asia (2) | 29.2 | 22.4 | 7.7 | 13.4 |
| Latin America and the Caribbean(3) | 7.2 | 9.2 | 2.7 | 3.2 |
| Other (4) | 22.7 | 23.8 | 19.2 | 13.6 |
| Total of Above | 100.0 | 100.0 | 100.0 | 100.0 |

Notes: (1) Hong Kong, Korea, Taiwan (2) Bangladesh, India, Indonesia, Pakistan, Philippines, Sri Lanka, Thailand (3) Argentina, Brazil, Colombia, Costa Rica, Dominican Republic, Haiti, Peru, Uruguay (4) Greece, Portugal, Spain, Turkey, Yugoslavia

Source: Goto (1988), Table 4.

tity by 113 percent between 1982 and 1984, while their value rose by 90 percent. The U.S. imports of clothing from these countries also surged, but by far less than for textiles.

It is these surges which have had industry critics in the United States decrying the effectiveness of the MFA in recent years. Import data from Cline (1987) for the EC, on the other hand, show not only a deceleration in import growth following the MFA I, but a continuation of the slowing trend into the early 1980s.

How Binding Are Trade Restrictions under the MFA?

These rapidly growing import volumes in the United States have led some, in recent years, to question the degree to which the MFA actually restricts textile and clothing exports of individual developing countries. Data reported in GATT (1984), and reproduced here as Table 2-7, emphasize how sharp this debate is.

In these data, average quota utilization rates are reported for individual supplying countries, averaged over a series of product categories

Table 2-5 Growth of Textile and Clothing Imports by Developed Countries from Developing Countries
(Percent per year in real terms)

| Category | 1963-76 | 1976-78 | 1978-84 |
|----------|---------|---------|---------|
| Textiles | 7.2 | 4.6 | 3.7 |
| Clothing | 20.9 | 4.8 | 10.9 |
| Total | 14.1 | 4.8 | 9.0 |

Source: Wolf (1986).

Table 2-6 U.S. Imports of Textiles and Clothing from Major Suppliers, 1982-84

(Millions of dollars, millions of SYE, and percentages)

| Supplier | 1982 | | | | Percentage increase over 1982-84 | | | |
|-----------------------------|----------|---------|----------|---------|-------------------------------------|-------|----------|-------|
| | Textiles | | Clothing | | Textiles | | Clothing | |
| | Value | SYE | Value | SYE | Value | SYE | Value | SYE |
| Hong Kong | 106.8 | 152.8 | 1,746.3 | 689.8 | 66.0 | 53.2 | 26.8 | 18.1 |
| Taiwan | 101.8 | 190.1 | 1,408.4 | 748.1 | 387.0 | 240.1 | 38.4 | 25.0 |
| Korea | 154.2 | 188.2 | 1,088.0 | 575.7 | 138.5 | 155.3 | 38.3 | 18.8 |
| China | 200.6 | 313.9 | 589.7 | 356.7 | 79.8 | 73.4 | 27.1 | 24.7 |
| Japan | 460.5 | 435.1 | 231.2 | 76.3 | 26.6 | 39.2 | 88.1 | 80.3 |
| Sum of those 5 countries | 1,024.0 | 1,280.1 | 5,063.6 | 2,446.7 | 93.8 | 96.2 | 35.3 | 23.3 |
| India | 767.0 | 59.6 | 149.1 | 72.9 | 63.6 | 104.6 | 78.4 | 79.9 |
| Philippines | 6.7 | 9.9 | 233.9 | 161.0 | 21.1 | -23.6 | 57.0 | 45.6 |
| Singapore | 11.4 | 22.0 | 170.9 | 82.4 | -49.9 | -44.5 | 72.6 | 55.0 |
| Thailand | 33.5 | 63.7 | 93.3 | 52.9 | 49.0 | 64.7 | 129.2 | 101.0 |
| Mexico | 20.0 | 53.5 | 130.9 | 55.8 | 205.8 | 258.8 | 55.9 | 54.1 |
| Sum of those 5 countries | 148.5 | 208.7 | 778.2 | 425.0 | 68.8 | 110.1 | 73.0 | 61.3 |
| Italy | 170.8 | 194.7 | 137.7 | 13.8 | 81.6 | 131.7 | 209.5 | 302.1 |
| United Kingdom | 84.8 | 36.8 | 64.5 | 6.3 | 54.4 | 233.5 | 116.0 | 176.2 |
| France | 72.4 | 46.5 | 65.9 | 6.4 | 59.2 | 88.2 | 94.6 | 145.3 |
| Germany, Fed. Rep. of | 61.6 | 122.5 | 18.2 | 2.5 | 113.2 | 132.2 | 148.6 | 183.4 |
| Canada | 51.4 | 130.7 | 42.7 | 7.8 | 91.0 | 119.6 | 51.0 | 43.3 |
| Sum of those 5 countries | 441.0 | 531.3 | 328.9 | 36.8 | 78.2 | 132.1 | 144.2 | 190.6 |
| Sum of all 15 countries | 1,613.5 | 2,020.1 | 6,170.7 | 2,908.5 | 87.3 | 107.1 | 45.9 | 31.0 |
| Other suppliers | 428.7 | 532.6 | 939.9 | 473.8 | 100.2 | 137.4 | 96.4 | 91.7 |
| World total | 2,042.2 | 2,552.8 | 7,110.7 | 3,382.3 | 90.0 | 113.4 | 52.6 | 39.5 |

Note: MFA categories only.*Source:* Cline (1987), Table 7.2

covering both textiles and clothing. These utilization rates are generally below 100 percent, and, for 1982, show a wide variation, ranging from 1.9 percent (Yugoslavia/the United States) to 106.5 percent (Taiwan/the United States). Moreover, for any given supplying country, the rate of utilization differs across importing regions. For example, in 1982 Brazil's utilization rate of the EC's quota was 86.6 percent, while for quota granted by the United States it was only 43.3 percent. Utilization rates are also volatile over time, and differ between products and among importing and exporting countries. In part, this reflects the ability of exporters to use the flexibility provisions of the MFA to respond to changing economic conditions and rapid changes in fashion needs.

Table 2-7 Data on United States and European Community Quota Utilization Rates by Suppliers, 1982

Utilization rate (percent)

| Exporter | Importer | |
|----------------|---------------|--------------------|
| | United States | European Community |
| Japan | 71.1 | n.a. |
| Hong Kong | 100.0 | 79.0 |
| Korea, Rep. of | 96.2 | 89.4 |
| Taiwan | 106.5 | n.a. |
| Macao | 93.9 | 86.1 |
| Singapore | 80.1 | 61.9 |
| Sri Lanka | 85.7 | 74.0 |
| Thailand | 83.2 | 82.5 |
| Indonesia | 100.0 | 78.1 |
| Malaysia | 85.8 | 59.2 |
| Maldives | 100.0 | n.a. |
| India | 75.3 | 69.6 |
| Pakistan | 85.1 | 89.4 |
| Philippines | 70.0 | 64.2 |
| Egypt | n.a. | 102.6 |
| Argentina | n.a. | 54.1 |
| Mauritius | 100.0 | n.a. |
| Brazil | 43.3 | 86.6 |
| Colombia | 43.5 | 35.5 |
| Costa Rica | 88.3 | n.a. |
| Dominican Rep. | 88.9 | n.a. |
| Haiti | 65.5 | n.a. |
| Mexico | 38.6 | 9.8 |
| Peru | n.a. | 93.5 |
| Bulgaria | n.a. | 64.6 |
| Czechoslovakia | n.a. | 78.7 |
| Hungary | n.a. | 43.2 |
| Poland | 60.5 | 35.0 |
| Romania | 84.9 | 73.4 |
| Yugoslavia | 1.9 | n.a. |
| China | 75.4 | n.a. |

n.a. Not available, usually because no bilateral agreement was in operation.

Note: Trade-weighted average across textile and clothing categories, unadjusted for flexibility provisions.

Source: GATT (1984), Tables 3.14 and 3.15.

Unfortunately, the data are far from conclusive on the degree of restrictiveness of quotas since there are many reasons why binding quotas can seem to be nonbinding. One reason may be the way quota is allocated among importers. Quota in the EC, for instance, is, in some cases, allocated among importing countries on the basis of historical market shares, regardless of the distribution of demand within the EC.

Hence, demand for, say, winter coats may be unmet in some EC countries and quotas are binding, but quotas remain unused in other countries and are not allowed to be reallocated. Furthermore, it can be the case that there are aggregate quotas for, say, shirts which are less than the sum of the subaggregate quotas for, say, types of shirts. Quotas may thus not appear to be binding at subaggregate level, although they are binding at aggregate level. Chaudhry and Hamid (1988), for example, found that in 1983 "the overall United States quota for Pakistan was less than the aggregate of category-wide quotas by 13.4 percent. Thus, though a category-wide quota may be available, increased export sales may become impossible because of aggregate quota limitations."¹¹

On the other hand, quotas can become redundant either because of periods of weak demand, such as in a recession, or as a result of short-term capacity restraints with new longer-term investment deterred by the risk of more severe future quotas. Quotas may also be unfilled if the system does not provide enough flexibility (swing, carry-forward, carry-over) for suppliers to enter new product markets to exploit emerging fashion trends.

For all these reasons, therefore, there is substantial debate on what these quota utilization rates actually mean. If exporting countries can have growth in their exports which is substantially above the 6 percent growth specified in their MFA quotas, how can these restrictions be binding? But if quota rights are traded at positive prices by brokers in Hong Kong, how can they not be binding?

Cline (1987) suggests that much of the increase in imports into the United States in 1980–84 can be attributed to the flexibility provided for quota use within the structure of the MFA. These allowed exporters to take advantage of the overvalued dollar and the strong U.S. recovery from recession in 1982. Hence, restrictive effects of the MFA can be partially offset through adjustments to basic quotas through flexibility provisions in the MFA. These permit exporters to "swing" some portion of an underutilized quota to a product category where the quota is binding, and to shift quotas between years (through carry-forward and carry-over). Flexibility provisions, however, have been tightened by a number of importing countries during the MFA II, III and IV.

Another way of weakening the restrictive effect of the MFA trade restraints is through product upgrading. Because the MFA involves physical rather than value restrictions on trade (i.e., by weight, number of pieces or surface area), it encourages quality upgrading through changes in the product mix. The principle reason for upgrading is that producers faced with a volume restriction on their exports can expand their value of sales by moving up-market into higher quality lines within quota categories. This has especially been the case for Hong Kong, which has succeeded in establishing a reputation for quality fabrics and fashion

sophistication. Diversification of trade to uncontrolled industrial countries, minor suppliers and to product categories either uncontrolled or subject to loose "consultation" controls is another effect of the MFA.

Geographical diversification in the form of "quota hopping" is yet another response to restraints. For example, the dramatic increase in foreign investment activities of Hong Kong clothing industries in lower-wage, less-restricted countries can be viewed as partly a response to Hong Kong quota limitations (for example, in Macao in the mid-1960s, Mauritius in the early 1970s, Sri Lanka and Indonesia in the late 1970s, and more recently in the Maldives and, on a much larger scale, China; see Young and Hood 1985). However, the MFA IV has tightened restrictions against "false declaration" of country of origin.

All of these features have allowed a sharp growth in imports of textiles and clothing into the United States to occur in the mid-1980s. However, as a study by the Congressional Budget Office (1985) notes, the sharp growth in imports in 1980-84 cannot continue because rising quota utilization rates eventually run their course as quotas become exhausted, and swing provisions and interyear quota adjustments provide only temporary flexibility. Evidence in Cline (1987) supports this evaluation, showing that the growth in the physical volume of textile imports fell dramatically from 53.7 percent in 1984 to only 5.1 percent in 1985, while the physical volume of clothing imports fell from 20.9 percent to 8.6 percent. Although the pace of import growth accelerated again in 1986 (20.8 percent for textiles and 13.2 percent for clothing), Cline suggests that "the likelihood is that this rise was in response to the extreme overvaluation of the dollar in 1984-85, and perhaps preemptive purchasing ahead of feared tightening in view of both MFA renewal and the threatened veto override on the Textile and Clothing Trade Enforcement Bill."¹² There was also a sharp rise in import growth in the EC in 1985, but this was the result of a significant expansion in consumer demand following a delayed recovery from the recession.

From this discussion, the conclusion seems to be that protection under the MFA has thus far slowed and obstructed the growth of imports, but because of the flexibility within its structure, it has not been able to prevent temporary import surges, such as those which occurred in the United States in the mid-1980s. The issue, therefore, is whether future restrictions on textile and clothing exports will continue only to slow the growth of developing country exports, or whether growth may be more sharply curtailed.

Do Developing Countries Gain or Lose from the MFA?

Evaluating the effects that the MFA actually has on developing countries has been a matter of substantial speculation over the years. One often hears claims, particularly from economists in developed countries, that developing countries have a large interest in seeking elimination of the MFA because of the restriction on their market access abroad. This is then counterbalanced by claims that this source of loss is offset by the quota rents which accrue to the exporting countries as a result of the operation of the MFA as an export restraint.

These observations, in turn, have led to substantial folklore as to what the effects of the MFA actually are, although unfortunately these claims remain largely undocumented by analysis of data carried out within a clear analytical framework. For instance, the claim is sometimes made that for developing countries their gain in quota rents more than outweighs the loss they suffer as a result of the restrictions on their market access, particularly for exports of clothing (see Keesing and Wolf 1980, p.125). As a result, it is said that developing countries generally would not seek to terminate the MFA because of the loss of their quota rents.

On the other hand, it is argued that quota rents only partially compensate for forgone earnings (see GATT 1984, p.152, Mark 1985, p. 8). Furthermore, it is the threat of what for them would be an even worse set of trade restrictions, namely, recourse to Article 19 of GATT that compels developing countries to seek renegotiation of the MFA. This would involve global import quotas by all importing countries (see Mark 1985, p.12). Under this set of arrangements, importing countries would administer the licenses issued to their importers, and developing countries would lose their quota rents. Therefore, the issue is not whether a comparison of quota rents can be made to the loss to developing countries from restricted market access, since it is simply the loss of quota rents which will propel them into renegotiation of the MFA.

Folklore goes farther and suggests that the MFA also divides the developing world into higher-cost and lower-cost suppliers, but here there are further conflicting stories. One which is commonly heard is that the economies that were affected earliest by quota restrictions (Hong Kong, Korea, and Taiwan) have the largest share of exports to developed country markets, have relatively high per capita incomes and wage rates, and so under the MFA have a protected market niche against the lower-cost suppliers (Keesing and Wolf 1980, pp.130, 165; Mark 1985, pp. 9, 13). They, so the argument goes, would not want to see the MFA terminated. But others have argued that under either free trade or a global quota system, the new and small suppliers would be squeezed out of international markets because of the size and greater productivity of established exporters (Mark 1985, p.9).

However, it is also argued that a further effect of the MFA has been to progressively expand the number of countries subject to restrictions. As this has taken place, foreign direct investment from restricted countries has flowed to unrestricted countries. Thus, when restrictions apply to Hong Kong, investment moves to, say, Malaysia, and if restrictions are subsequently introduced against Malaysia, investments move to, say, Sri Lanka. Thus, under this view of the world, newer entrants into the MFA tend to be the relatively less efficient suppliers who are the most recent recipients of inward foreign investment. Thus, to the extent this is true, with the elimination of the MFA, trade in textile and clothing products would tend to gravitate back to the larger exporters (Hong Kong, Korea and Taiwan).

This view is held, for instance, in the Philippines. Medalla and Tecson (1988) argue that "under the MFA the country's exporters enjoy a share of the United States (and the European Community) market which would not have been possible had they been forced to compete under no import controls with veteran exporting economies such as Korea, Taiwan and Hong Kong."¹³ Similarly, Cable (1987) mentions that "many of the minor exporters, especially the less competitive Latin American and East European exporters, see the MFA as providing a guaranteed market share in a field they would otherwise find difficult to enter."¹⁴

This is, of course, a very different view of the world compared to the more traditional market niche approach. Although it is sometimes claimed that there is no empirical evidence to support this, one can look at the experience of those importing countries who have experimented with both involvement with the MFA and global quotas, such as Canada in 1977 and Norway in 1978. In these cases, under a move to global import quotas import trade became more concentrated on the big three Asian suppliers and moved away from the smaller suppliers (see Jenkins 1980, p. 4 and Cable 1987, p. 637).

If these are the elements of folklore, one may be tempted to ask what evidence there is on the actual effects of the MFA. Various attempts have been made to estimate the magnitude of foregone exports and transferred rents from trade restrictions in textiles and clothing. Most studies have found the decline in export opportunities and revenues from the MFA to be substantial for developing countries. For example, the UNCTAD (1986) estimated that complete nondiscriminatory liberalization (involving both tariffs and the MFA quotas) could increase developing country exports of clothing by 135 percent and textiles by 78 percent. Another estimate by Kirmani and others (1984) suggests that developing country exports to the major OECD countries could increase by 82 percent for textiles and 93 percent for clothing if both trade restrictions were removed.

In recent work we have also estimated the effects on trade flows of eliminating both quota and tariff restrictions on developing country exports of textiles and clothing.¹⁵ We use a global general equilibrium model, which we also employ for welfare analysis of the MFA termination (these results are discussed later). Our results show that foregone exports by exporting developing countries are even larger than those reported by earlier studies and are highly variable across countries. For example, in the central case model results, if all developed country trade restrictions on textile and clothing exports are removed, textile and clothing exports from Korea and Hong Kong would increase by 210 percent and 35 percent, respectively. Moreover, exports from China would increase by 322 percent, while those from Bangladesh would increase by 70 percent. Further, exports from developing countries would increase by more than imports would increase in the United States, Canada and the EC because of the reduction in inter-developed-country trade. For example, imports by the United States, Canada and the EC would increase, respectively, by 203 percent, 172 percent and 218 percent.

There is also some evidence on quota premiums which indicate both the severity of the trade restrictions against developing countries and the size of rent transfers. Within Pakistan, for instance, quota premiums currently range from about 50 percent of the FOB value of the item for clothing and cloth to about 80 percent for cotton knitwear (Chaudhry and Hamid 1988). Hamilton (1988) estimated that import tariff equivalents of voluntary export restraints on clothing from Hong Kong in the EC over the period 1980–84 were about 14 percent. In the United States, these same premiums were about 28 percent. Similarly, Morkre (1984) found that for nine major clothing product categories, the average quota premium for U.S. imports from Hong Kong in 1980 amounted to 23 percent. An earlier editorial in *Textile Asia*, published in Hong Kong, claimed quota premiums account for 15 to 25 percent of export value.¹⁶

Few studies, however, have evaluated the relative importance of foregone exports and acquired rents. Even though there are no direct welfare conclusions that can be drawn from such a comparison, Balassa and Michalopoulos (1985) estimate that the value of foregone textile and clothing exports by developing countries to the United States exceeds the transferred rent by a factor of nine, and by a factor of seven for the EC.

Our recent work also investigates these issues. The global general equilibrium model we use covers three major developed country importers: the United States, Canada and the EC, thirty-four developing country exporters; fourteen textile and clothing product categories; and one composite other good (residual GDP).¹⁷ The fourteen product categories reflect the constraints implied by generating a cross-country data

set covering trade under the different MFA quota categories used by the major importing countries (the United States, Canada and the EC).

All developed countries are treated as net importers of textiles and clothing (and exporters of the other goods), while all developing countries are modeled as exporters of textiles and clothing (and importers of the other goods). Inter-developed-country trade is quota (although not tariff) free. The relative size of developed to developing countries reflects differences in the GDP, and so full rent transfer, as in the small economy case, does not occur. Trade in textiles and clothing among developing countries does not enter the model, since otherwise differences in supply prices among these countries would be arbitrated away. Thus, the model captures trade diversion effects among developed countries due to joint bilateral quotas on exports by developing countries. As a result, domestic prices in the various developed countries depend on the quota policies of all developed countries, not only their own.

Table 2-8 Hong Kong Quota Prices for Selected Clothing Items Exported to the United States

| Category Description | U.S. | |
|--|-----------------------|-------------------|
| | Quota Category Number | 1984 ^a |
| Men's cotton jacket | 333/334 | 19 |
| Ladies' cotton jacket | 335 | 27 |
| Cotton knit shirt and blouse | 338/339 | 50 |
| Men's cotton woven shirt | 340 | 38 |
| Ladies' cotton woven shirt | 341 | 36 |
| Ladies' cotton woven skirt | 342 | 37 |
| Cotton knit sweater | 345 | 59 ^c |
| Men's cotton pant | 347 | 50 |
| Ladies' cotton pant | 348 | 63 |
| Ladies' wool knit blouse | 438 | 19 |
| Wool knit sweater | 445/446 | 120 |
| Men's MMF jacket ^b | 633/634 | 23 ^c |
| Ladies' MMF shirt ^b | 635 | 15 ^c |
| MMF knit shirt and blouse ^b | 638/639 | 27 |
| Men's MMF woven shirt ^b | 640 | 65 ^c |
| Ladies' MMF woven blouse ^b | 641 | 58 ^d |
| Ladies' MMF pant | 648 | 34 ^d |
| Average ^e | | 42 |

Note: As a percent of export price.

a. 1984 refers to the period January 1983 to May 1984.

b. MMF = man-made fibers

c. January to May 1984 only.

d. January to December 1983 only.

e. From the proportion of total rent to total export value net of total rent.

Source: Hamilton (1986a).

Table 2-9 Average Supply Prices of Quota-Restricted Textiles and Clothing, 1984

(All prices expressed relative to U.S. supply prices of unity)

| Exporter | Adjusted for differences in labor productivity and product quality |
|--------------------|---|
| Bangladesh | 0.36 |
| Brazil | 0.31 |
| Bulgaria | 0.68 |
| China | 0.55 |
| Colombia | 0.47 |
| Czechoslovakia | 0.68 |
| Costa Rica | 0.62 |
| Dominican Republic | 0.68 |
| Egypt | 0.60 |
| Guatemala | 0.60 |
| Haiti | 0.55 |
| Hong Kong | 0.68 |
| Hungary | 0.53 |
| India | 0.55 |
| Indonesia | 0.52 |
| Korea, Republic of | 0.49 |
| Macao | 0.60 |
| Malaysia | 0.47 |
| Mauritius | 0.52 |
| Mexico | 0.60 |
| Nepal | 0.55 |
| Pakistan | 0.55 |
| Panama | 0.68 |
| Peru | 0.60 |
| Philippines | 0.62 |
| Poland | 0.68 |
| Romania | 0.60 |
| Singapore | 0.63 |
| Sri Lanka | 0.55 |
| Taiwan | 0.60 |
| Thailand | 0.60 |
| Turkey | 0.31 |
| Uruguay | 0.63 |
| Yugoslavia | 0.58 |

Source: Trela and Whalley (1988), Table 4.

The model is calibrated to a 1986 multicountry micro-consistent data set involving production, consumption and trade in fourteen textile and clothing product categories and one other good (residual GDP) for each of the thirty-seven countries captured. Since quota price data are only readily available for Hong Kong, we use data on Hong Kong quota prices for fifteen product categories exported to the United States for 1983 and the first five months of 1984, based on calculations made by Hamilton

Table 2-10 Estimates of General Equilibrium Welfare Effects of Removing Bilateral MFA Quotas and Tariffs on Textiles and Clothing in All Developed Countries
(US\$ 1986 billions)

| Economy | Country Welfare Gain or Loss in Terms of Hicksian Equivalent Variations |
|----------------------------|--|
| United States | 3.478 |
| Canada | 0.311 |
| European Community | 3.487 |
| Exporting Countries | |
| Bangladesh | 0.290 |
| Brazil | 0.921 |
| Bulgaria | 0.002 |
| China | 1.640 |
| Colombia | 0.309 |
| Czechoslovakia | 0.081 |
| Costa Rica | 0.007 |
| Dominican Republic | 0.005 |
| Egypt | 0.046 |
| Guatemala | 0.005 |
| Haiti | 0.006 |
| Hong Kong | -0.088 |
| Hungary | 0.105 |
| India | 0.074 |
| Indonesia | 0.321 |
| Korea, Republic of | 1.562 |
| Macao | -0.005 |
| Malaysia | 0.191 |
| Mauritius | 0.030 |
| Mexico | 0.101 |
| Nepal | 0.018 |
| Pakistan | 0.004 |
| Panama | 0.001 |
| Peru | 0.045 |
| Philippines | 0.173 |
| Poland | 0.131 |
| Romania | 0.104 |
| Singapore | 0.016 |
| Sri Lanka | 0.053 |
| Taiwan | 0.884 |
| Thailand | 0.017 |
| Turkey | 0.629 |
| Uruguay | 0.003 |
| Yugoslavia | 0.056 |
| All Developing Countries | 7.755 |
| All Countries | 15.032 |

Note: Transformation and substitution elasticities in the model are set equal to -0.5 and 5.0 in the bottom level of nesting for all countries. In the top two levels, elasticities of transformation and substitution in all developed countries reflect literature estimates of U.S. total demand elasticities and assumed supply elasticities of 1.0. The elasticities are -1.01 and 0.61 in all developed countries. Cobb-Douglas specifications are used at the top two levels in all developing countries.

Source: Trela and Whalley (1988), Table 6.

(1986a), to calculate quota prices for the fifteen categories for 1984. This set of price data is given here in Table 2-8. Hong Kong quota prices for the other MFA products exported to the United States are calculated on the basis of an average of the quota prices given in Table 2-8.¹⁸ From these data the unit costs of production of individual textile and clothing products in Hong Kong can be calculated.

Production costs of quota-restricted items in other supplying countries are calculated by assuming that for each product category, the unit cost can be approximated by the unit cost in Hong Kong multiplied by the ratio of the supplying country's relative wage rate in textiles and clothing compared to Hong Kong. We then make further adjustments for differences in labor productivity and product quality. Quota prices by product and by country are then calculated as the difference between foreign unit costs and prices paid by importers. The resulting average supply prices of restricted products by country are reported in Table 2-9.

The model is used in counterfactual equilibrium mode; calibration to an initial benchmark equilibrium data set followed by counterfactual equilibrium analysis (see Shoven and Whalley 1984). Results using 1986 data clearly show that the vast majority of developing countries gain from the removal of trade restrictions on textiles and clothing, with some gaining proportionately more than others (see Table 2-10). These effects by country reflect improvements in each country's market share in developed country markets, as well as the rent transfer effects of the bilateral quotas.

In aggregate, developing countries gain around \$8 billion, suggesting that gains to developing countries from improved access more than offset losses from forgone rent transfers as quotas and tariffs are abolished. This is even the case for relatively larger holders of quotas such as Korea and Taiwan, who, it has always been argued, have a protected market niche against lower-cost competition under the MFA.

In the presence of quotas (and tariffs) they, along with other developing countries, are nonmarginal suppliers to developed country markets. Thus, rather than losing share to other developing countries under an MFA elimination, higher-income developing countries (like other lower-cost developing countries) gain market share due to growth in developed country markets, and reduced inter-developed-country trade.

We also consider other variations in policies, including elimination of the MFA quotas only and leaving tariffs in place, which are reported in Table 2-11. In this case, all developing countries are worse off compared to the case in Table 2-10, because their market access is reduced by developed country tariffs. Even larger gains result for the developed countries. This reflects their more advantageous terms of trade as a result of not also eliminating their tariffs.

Table 2-11 Welfare Effects of Removing Bilateral Textile and Apparel Quotas, But Not Tariffs
(1986 US\$ billions)

| Economy | Country Welfare Gain or Loss in Terms of Hicksian Equivalent Variations |
|----------------------------|--|
| United States | 5.347 |
| Canada | 0.389 |
| European Community | 5.029 |
| Exporting Countries | |
| Bangladesh | 0.223 |
| Brazil | 0.753 |
| Bulgaria | -0.003 |
| China | 0.772 |
| Colombia | 0.240 |
| Czechoslovakia | 0.018 |
| Costa Rica | -0.003 |
| Dominican Republic | -0.012 |
| Egypt | 0.020 |
| Guatemala | 0.002 |
| Haiti | -0.003 |
| Hong Kong | -0.573 |
| Hungary | 0.056 |
| India | -0.036 |
| Indonesia | 0.149 |
| Korea, Republic of | 0.817 |
| Macao | -0.058 |
| Malaysia | 0.122 |
| Mauritius | 0.013 |
| Mexico | 0.030 |
| Nepal | 0.008 |
| Pakistan | -0.031 |
| Panama | -0.001 |
| Peru | 0.018 |
| Philippines | 0.060 |
| Poland | 0.047 |
| Romania | 0.014 |
| Singapore | -0.042 |
| Sri Lanka | 0.000 |
| Taiwan | 0.164 |
| Thailand | -0.045 |
| Turkey | 0.388 |
| Uruguay | -0.004 |
| Yugoslavia | -0.039 |
| All Developing Countries | 3.070 |
| All Countries | 13.837 |

Note: Transformation and substitution elasticities set equal to -0.5 and 5.0 in the bottom level of nesting for all economies in the model. In the top two levels, elasticities of transformation and substitution in all developed countries reflect literature estimates of U.S. total demand elasticities and assumed supply elasticities of 1.0. The elasticities are -1.01 and 0.61 in all developed countries. Cobb-Douglas specifications are used at the top two levels in all developing countries.

Source: Trela and Whalley (1988), Table 7.

Even these model results, however, have to be taken with some qualification, since there are several other (indirect) effects of the MFA not captured by any of the currently available studies. One effect is to divert trade from more restricted to less restricted developing countries and even to uncontrolled industrial countries.¹⁹ This effect is apparent in data reported by Cline (1987) on U.S. imports of clothing. In 1982–84, U.S. imports from the major controlled suppliers (Hong Kong, Korea, Taiwan, China, and Japan) grew by 23 percent, while those from the industrial countries and from the minor suppliers grew by 191 percent and 92 percent, respectively. Similarly, Wolf (1987) presents data showing that in 1981–85, U.S. imports from the Asian Big Three grew at an annual rate of less than 10 percent, while those from other developing countries and from Europe grew by 22 percent and 33 percent, respectively.

Furthermore, since the MFA quotas are in physical terms, they encourage quality upgrading. Evidence for this in the U.S. case also appears in the data reported from Cline (1987), reproduced earlier as Table 2–6. This shows that for clothing, the real value of imports grew considerably more rapidly than the physical volume over the period 1982–84.

The MFA also has the effect of encouraging investment flows from restricted to nonrestricted or less restricted developing countries. The large-scale overseas investment activity of Hong Kong is frequently cited in support of this argument. As Kumar and McLeod (1981) point out, the reason why these investments are made is mainly “to circumvent the quotas imposed by the developed countries.”²⁰ However, although foreign direct investment encourages economic development in host countries, these countries are rarely able to penetrate markets to any great extent before being restrained. As a result, their opportunities for industrial development are subsequently diminished by the application of the MFA restrictions.

Another effect of the MFA is to generate quota allocation procedures within developing countries which themselves can lead to economic inefficiency. Under the MFA, exporting countries have the responsibility for administering the license system. Faced with this, individual developing countries have set up a variety of quota allocation procedures (see Hamilton 1986b, *Business India* 1987). While these allocation systems are not completely rigid in their allocations by firm, they nonetheless exhibit considerable stickiness.

First, not permitting trade in licenses provides protection for existing firms against more efficient producers and new domestic competition. Second, past performance criteria for allocating quota volumes can result in firms producing at a suboptimal scale. If full transferability were allowed, some firms might simply sell their allocation of licenses and close down. The firms which buy the licenses could then operate at a

more efficient scale of production. Rent seeking may be yet another effect of these quota allocation procedures leading to suboptimal resource use.

In sum then, there is conflicting folklore as to what the effects of the MFA on developing countries actually are, and only limited studies yielding firm evidence. The few studies that exist seem to suggest that the transferred quota rents under the MFA do not fully compensate developing countries for their loss of market access. Moreover, the indications from recent work are that most developing countries (including higher-cost suppliers) could well gain from an elimination of the MFA because they would jointly share in an expanded developed country market, reduced developed country production, and reduced inter-developed-country trade. There are, however, a number of unstudied and unquantified factors which potentially complicate the picture, including the degree to which quotas are binding, effects on inter-developing-country investment flows, and quality upgrading.

How Much Does the MFA Retard Development?

The preceding discussion of the impacts of the MFA on developing countries focused on benefits from improved market access, transfers of quota rents, and other effects which spring naturally to the mind of trade theorists. These are, however, largely static rather than dynamic effects; and developing country policymakers frequently argue that the more serious implications of the MFA are those which affect individual country's growth and development.

In 1985, the OECD also argued that "the expansion of textile and clothing exports had become for the developing countries an increasingly important determinant of their economic development." Their view was that they had seen the highly beneficial results of both economic growth and social development from export-led growth, first in Japan, and then in Hong Kong, Korea, Singapore, and Taiwan. They argued that in order to make moves toward outward-oriented trade policies, developing countries needed not only continued, but expanded access to markets of the major industrial countries, and removing the MFA restrictions played a major role in this.

While the MFA quotas provide certainty of market access for developing country exports up to agreed limits, poorer developing countries only have limited access to markets abroad compared to traditional suppliers. Although smaller exporters are given higher quota growth rates, they apply to a small base and they do not allow rapid development of indigenous textile and clothing industries. As Keesing and Wolf (1980) argue, "if the MFA quotas did not exist the developing countries would have the opportunity to follow much the same path to industri-

alization that Hong Kong, Korea, Singapore, and Taiwan have been taking and to supplant them as leading clothing exporters."²¹

Moreover, further harmful consequences of the MFA quotas follow from their adverse impact on investment opportunities in developing countries. The experience of Sri Lanka in 1977–78 and Bangladesh in late 1985 when the harsher MFA quotas restricted inward investment flows are examples of discouragement effects due to the MFA. These are particularly serious for countries which are only just starting to foster export-oriented manufacturing. As Chaudhry and Hamid (1988) further point out in discussing the effects of the MFA on Pakistan's textile industry, the MFA has "hampered modernization of the sector, led to expansion of the low cost power-loom sector, and generally put Pakistan technically behind in textiles."²²

However, the effect of MFA restrictions on the overall growth performance of developing countries provides a more varied picture. For example, despite the increasingly restrictive MFA quotas, the Asian Big Three have continued to have high growth rates through the 1970s and 1980s (see Table 2–12). A key factor behind this has been a continuous and rapid expansion of exports, fueled in large part by the growth of exports of textiles and clothing. A trend of increasing protectionism against these countries in other product lines beyond textiles and clothing is also clearly discernible. According to Kim (1988), up until 1976 only Korean exports of textiles and clothing, footwear and cookware were restricted. By 1984, the list of restricted items had grown to also include exports of iron and steel, television sets, and tires and tubes.

Korea's experience illustrates that trade restrictions frequently affect supplying countries as they are beginning to develop a comparative advantage in particular export categories. These restrictions also intensify the pressure on these countries to diversify out of single-process, labor-intensive commodities such as textiles and clothing into more capital- and technology-intensive commodities, such as iron and steel and consumer electronics.

One's view of the seriousness of the MFA restrictions for development thus depends, in part, on whether one believes that production of labor-intensive textiles and clothing is the essential first step in a sequence of stages toward industrialization. One famous view of the sequence of stages that countries pass through during the course of their development is that of Rostow (1960a, 1960b). He argues that all countries can be identified as being in one of five categories: traditional society, exhibiting preconditions for take-off, at the take-off to sustained growth, showing a drive to maturity, and at a stage of high mass consumption.

The rural agrarian economy is Rostow's traditional society. Development begins with the reallocation of surplus agricultural workers, whose

Table 2-12 Growth Rates of Real GDP for Selected Asian Developing Economies
(Annual compound rates)

| | 1960-70 | 1970-80 | 1980-85 | 1986 ^a |
|--------------------------|---------|------------------|---------|-------------------|
| NICs | | | | |
| Hong Kong | 10.1 | 9.8 | 4.2 | 8.7 |
| Korea, Rep. of | 9.5 | 8.2 | 7.5 | 11.4 |
| Singapore | 9.2 | 9.3 | 6.0 | 1.9 |
| Taiwan | 9.6 | 9.7 | 6.1 | 9.9 |
| ASEAN-4 | | | | |
| Indonesia | 3.8 | 8.0 | 3.6 | 2.0 |
| Malaysia | n.a. | 7.9 | 5.1 | 0.5 |
| Philippines ^b | 5.2 | 6.3 | -0.9 | 0.1 |
| Thailand | 7.9 | 6.9 | 5.3 | 3.8 |
| South Asia | | | | |
| Bangladesh | n.a. | 5.8 ^c | 3.9 | 5.2 |
| Burma | 2.8 | 4.2 | 5.2 | 3.7 |
| India | 3.9 | 3.2 | 5.4 | 5.0 |
| Nepal | 2.2 | 2.0 | 3.9 | 4.2 |
| Pakistan | n.a. | 5.6 ^c | 6.3 | 7.2 |
| Sri Lanka | 5.8 | 4.7 | 5.0 | 4.0 |
| China | 4.0 | 5.8 | 9.8 | 7.4 |

n.a. Not available.

a. 1986 preliminary estimates except for Bangladesh, Burma, China, Nepal and the Philippines.

b. GNP.

c. 1973-80.

Source: James and others (1987), Table 1.3.

productivity is low, to industry where they become more productive. In the precondition phase, there is a buildup of infrastructure, notably in the form of ports, railways and roads, which are important inputs for primary exports; technological advance in agriculture; expanded markets; an expanded supply of funds to the modern sector; and a rise in the level of investment to at least 10 percent of national income. This is all accomplished through an expansion in imports financed by the surplus generated in agriculture, plus, where possible, capital imports.

The take-off is characterized by a rise in investment to a level in excess of 10 percent of national income. The take-off also exhibits rapid growth in a limited group of manufacturing sectors. These leading sectors have historically ranged from cotton textiles and clothing (Great Britain and the New England region of the United States), to railroads (the United States, France, Federal Republic of Germany, Canada, U.S.S.R.), to modern timber-cutting and railroads (Sweden). In addition, agricultural processing, oil, import-substitution industries, ship-building and rapid expansions in military output have helped to provide the initial surge in other cases.

During the drive to maturity, growth proceeds in different patterns through a changing sequence of leading sectors. There is, therefore, no need for the sequence of leading sectors in developing countries today to repeat the classic pattern of, say, Great Britain: cotton, pig-iron, steel, engineering and so on. In fact, in the 20th century, some of the leading sectors have been petroleum (Arab nations), agriculture (Australia, Argentina), rubber, palm-oil and timber (Malaysia), as well as textiles and clothing (Japan, Korea, Hong Kong, Singapore, Sri Lanka, to name a few).

During the drive to maturity, leading sectors are determined by the pool of technology as well as by natural or acquired resource endowments. They may also be determined by the policies of governments. Countries generally develop through structural change in response to shifts in comparative advantage—beginning with specialization in primary products and advancing to single-process, labor-intensive manufactures, capital- and technology-intensive goods, and finally to higher-technology- and knowledge-intensive products.

The effect of the MFA on development is, therefore, a contentious matter. If textile and clothing industries play a key role in the initial industrialization surge in developing countries, then access to markets abroad is not only important in allowing them to trade more and realize traditional gains from trade, but also in speeding their growth by moving through a sequential product-line development process. The difficulty with this view of the growth process is that some of the countries, notably the Asian Big Three, have had remarkable growth rates, despite the increasingly restrictive MFA quotas.

There are even some (Cable 1981, p. 34) who argue that trade restrictions on textiles and clothing can be helpful to developing countries by forcing them to progress through stages more quickly and, therefore, grow more rapidly. When combined with the observation that there are several successful growth experiences which appear not to have relied on an initial surge of production (and trade) in textiles and clothing, the significance of the MFA for the growth prospects of individual developing countries becomes even more difficult to pin down.

Impacts in the Developed World and What Needs to Be Done to Eliminate the MFA

Beyond the issues of the impact of the MFA on developing countries, and hence whether termination of the MFA is good for them, there are other issues which concern the developed countries.

The MFA, along with the earlier trade restrictions on textiles and clothing in the 1960s, has always been conceived of as a temporary

arrangement to allow developed countries' domestic manufacturers and workers to adjust to foreign competition, and so could eventually be eliminated. As such, the MFA has often been projected by developing countries as a trade-promoting measure because of its adjustment-facilitating objectives which seek to provide orderly development of trade, rather than simply being a trade-restricting measure. This is despite the fact that in most modern discussion of the trading system, the MFA is cited as the most visible of the various developed country product-specific trade restrictions currently in place.

In defining negotiating objectives toward the MFA, it, therefore, becomes central for developing countries to decide whether or not they should view these arrangements as truly temporary, or approach them, instead, as a permanent component of developed country trade restrictions. One can argue that there has been significant labor adjustment in developed countries, particularly out of textile production, and to a lesser extent, also out of clothing. At the same time, surviving firms have sought to regain competitiveness through cost cutting, productivity improvements, outward processing, foreign investment, increased industrial concentration and vertical integration.²³ But despite these changes, there are, and will continue to be, firms in the developed world that, despite reinvestment, cannot compete with lower-cost foreign exports.

What keeps these restrictions in place? In evaluating the impact of the MFA, this is a question that developing countries need to ask. Is it the adjustment problems associated with labor, in which case the continual decline in the size of the work force in these industries will eventually weaken the political support for continued protection? Or is it wider adjustment problems, involving output and capital investment in the industry?

Beyond that, it is important for developing countries to be aware of the political pressures which maintain these trade restrictions as well as other pressures which in the longer run could offset them. In textiles, for instance, in recent years many developed countries appear to have become internationally competitive with lower-wage developing countries due to improvements in productivity through higher technology investment. Textile producers in these countries, however, still strongly support protection for clothing producers in their own countries. This is because their access to markets abroad is restricted by import-substitution policies in a number of developing countries, and they see a strong domestic clothing industry as central to their interest. An issue for developing countries is how far they might be willing to go in trying to splinter the developed country groups which support the MFA, even to the extent of being willing to liberalize their own restrictions on imports of textiles from the developed world.

With the growth of imports of clothing, there is also growing support for a weakening of textile restrictions among retailers, one of the groups that seems to have been important in the elimination of restrictions on footwear (see Hamilton 1989). Retailers, and the extent of their political pressure, may therefore become important in evaluating the appropriate strategy toward the MFA for developing countries.

Data on the adjustments which have taken place in textiles and clothing in developed countries are reported in Table 2-13 (taken from Cline 1987), for the decades 1963-73 and 1973-83. This covers five Western European countries, the United States and Japan. As the table indicates, the experience in all countries involves considerably more adjustment in the more recent decade compared to 1963-73. All countries, except Italy and Japan, experienced severe declines in both textile and clothing employment over the period, with the largest decline occurring in the Netherlands.

These changes in employment reflect several effects as De la Torre (1984) argues, including import competition, stagnant demand, and increased productivity. Existing evidence seems to suggest that labor displacement in textiles and clothing due to productivity growth is more

Table 2-13 Changes in Employment in Textiles and Clothing in Major Developed Countries, 1963-83
(Percent)

| | Textiles | Clothing | Combined |
|------------------------------|----------|--------------------|----------|
| United States | | | |
| 1963-72/73 | 12.0 | 8.2 | 9.8 |
| 1972/73-1983 | -25.2 | -14.0 | -18.6 |
| Germany, Federal Republic of | | | |
| 1963-72/73 | -22.2 | -5.7 | -15.5 |
| 1972/73-1983 | -42.6 | -52.2 | -46.9 |
| France | | | |
| 1963-72/73 | 34.0 | -17.5 ^a | 12.5 |
| 1972/73-1983 | -64.7 | -25.6 ^a | -52.8 |
| Italy | | | |
| 1967-72/73 | -8.6 | 45.1 | 5.6 |
| 1972/73-1981 | -28.4 | 7.9 | -15.1 |
| United Kingdom | | | |
| 1963-72/73 | -31.8 | -22.4 | -28.5 |
| 1972/73-82 | -50.4 | -37.6 | -54.6 |
| Netherlands | | | |
| 1963-72/73 | -36.3 | -59.1 | -49.1 |
| 1972/73-1982 | -58.5 | -70.4 | -63.9 |
| Japan | | | |
| 1963-72/73 | -8.8 | 55.5 | -0.4 |
| 1972/73-1983 | -42.2 | 8.0 | -29.7 |

a. Estimated.

Source: Cline (1987), Table 5.3.

important than increases in imports, although the magnitude of job displacement caused by the different factors varies by sector and by country. De la Torre (1984) provides a simple accounting decomposition of the effects of trade, labor productivity and the size of market demand on clothing employment in six Western European countries, the United States and Japan.²⁴ His results, reported in table 2-14, show that, on average, productivity increases account for 27 percent of the 1970-80 decline in employment in the eight countries, almost three times greater than that due to rising imports. Cline (1987) comes to a similar conclusion in his study of employment change in textiles and clothing in the United States. Even for the import surge of 1982-85, he concludes that the effect on textile employment of import growth was still only one-sixth as large as that from increased productivity. In clothing, rising imports are a more important source of employment declines, but productivity growth remains the dominant effect.

To the extent that adjustment has occurred behind a protective barrier in textiles and clothing, it has involved two components: productivity growth through automation and industry contraction in both output and employment. Table 2-15 (taken from Cline 1987) presents data on average annual growth rates of output, employment and labor productivity for five Western European countries, the United States and Japan over the period 1963-83. The data indicate that productivity growth has proceeded, on average, less rapidly in the United States than in Europe and Japan, and that industry contraction has been relatively less dramatic in the United States, because adjustment has been taking place through reduction in employment, rather than production.

Labor adjustment in textiles and clothing is made more difficult by geographic, demographic, and other factors.²⁵ Employment is frequently concentrated in areas with a narrow industrial base, and above-average unemployment rates. Examples of this are Northern Ireland and Yorkshire in the United Kingdom, Viborg and Ringkøbing in Denmark, Drente and Overijssel in the Netherlands, and Graftschaft Bentheim and Ahaus in the Federal Republic of Germany.

Table 2-16 confirms that in most developed countries employees in textile and clothing industries, and especially in clothing, tend to be predominantly female and low paid. Women account for about 50 percent of employment in textiles and about 80 percent in clothing, and earnings of textile and clothing workers are consistently lower than those in manufacturing.

These characteristics of textile and clothing employment tend to raise labor adjustment costs compared to other industries. Since many textile and clothing industries are located in depressed regions, duration of unemployment for displaced workers tends to be higher. In addition, female workers have less continuous employment experience to rely on

Table 2-14 Impact of Changes in Demand, Productivity, and Trade on Employment in the Clothing Industry, 1970-80

| | Belgium | France | Federal Republic of Germany | Italy ^a | Nether- lands | United Kingdom | United States | Japan | Total |
|---|---------|--------|--------------------------------------|--------------------|------------------|-------------------|------------------|-------|-------|
| Total employment (thousands) | | | | | | | | | |
| 1970 | 60.5 | 322 | 381 | 207 | 58.5 | 377 | 1,164 | 326 | 2,896 |
| 1980 | 39.5 | 251 | 249 | 171 | 18.1 | 257 | 1,075 | 392 | 2,453 |
| Change in thousands | -21.0 | -71 | -132 | -36 | -40.4 | -120 | -89 | +66 | -443 |
| % Change | -34.7 | -22.0 | -34.6 | -17.4 | -69.1 | -31.8 | -7.6 | +20.2 | -15.3 |
| Effect on employment (% of 1970 employment) of changes in: ^b | | | | | | | | | |
| Domestic demand | +82.1 | +6.7 | +10.7 | -1.6 | +46.5 | +20.5 | +32.8 | +10.2 | +21.7 |
| Productivity | -77.1 | -20.1 | -23.9 | -29.3 | -61.4 | -44.4 | -34.2 | +25.4 | -27.0 |
| Net imports | -39.9 | -8.6 | -21.4 | +13.5 | -54.2 | -7.9 | -6.3 | -15.4 | -10.0 |

a. Italian figures have been adjusted to account for "undeclared legal production."

b. Additions appear to be incorrect due to rounding of figures.

Source: De la Torre (1984), table 2.19.

Table 2-15 Average Growth Rates: Output, Employment, and Labor Productivity in Industrial Countries, 1963-83
(Percent)

| | Textiles | | Clothing | |
|--------------------------|-------------------|-------------------|------------|--------------------|
| | 1963-72/83 | 1972/73-83 | 1963-72/73 | 1972/73-83 |
| Germany, Federal Rep. of | | | | |
| Output | 3.4 | -1.5 | 2.8 | -2.8 |
| Employment | -2.6 | -5.3 | -0.6 | -7.0 |
| Labor production | 6.1 | 3.8 | 3.5 | 4.2 |
| France | | | | |
| Output | n.a. | n.a. | n.a. | n.a. |
| Employment | 3.1 | -9.9 | -2.0 | -2.8 |
| Labor production | n.a. | n.a. | n.a. | n.a. |
| Italy | | | | |
| Output | 2.9 ^b | 2.4 ^c | 12.0 | 1.9 |
| Employment | -1.6 ^b | -3.9 ^c | 6.8 | 0.7 |
| Labor production | 4.6 ^b | 6.4 ^c | 5.3 | 1.1 |
| United Kingdom | | | | |
| Output | 2.3 | -4.8 ^d | 2.2 | -1.1 ^d |
| Employment | -4.0 | -7.4 ^d | -2.7 | -5.0 ^d |
| Labor production | 6.3 | 2.6 ^d | 4.8 | 3.9 ^d |
| Netherlands | | | | |
| Output | 1.1 | -3.7 ^d | -1.0 | -4.0 ^d |
| Employment | -4.7 | -9.2 ^d | -9.4 | -12.8 ^d |
| Labor production | 5.8 | 5.6 ^d | 8.5 | 8.8 ^d |
| United States | | | | |
| Output | 4.2 | 0.7 | 2.6 | 1.3 |
| Employment | 1.2 | -2.8 | 0.8 | -1.4 |
| Labor production | 4.9 | 3.7 | 1.3 | 2.8 |
| Japan | | | | |
| Output | 7.2 | -1.0 | 4.5 | -0.6 |
| Employment | -1.0 | -5.2 | 5.8 | 0.7 |
| Labor production | 8.2 | 4.3 | -1.4 | -1.4 |

n.a. Not available.

a. 1961-72 and 1973-85.

b. Base year 1967.

c. End-year 1982.

d. End-year 1982.

Source: Cline (1987), Table 5.7.

in getting other jobs, and, as secondary household earners, usually have less mobility. Many of the displaced workers from these industries are in their fifties and sixties, and adjustment problems are compounded because displacement of textile and clothing workers tends to be largest among unskilled minority worker groups and immigrants.

What are some of the implications of these adjustment problems for efforts to terminate the MFA? All of the factors above which make adjustment difficult out of developed-world textiles and clothing industries, in part, explain why the MFA is there in the first place. There are,

Table 2-16 Female Share of Salaried Employment in the Textile and Clothing Industries, 1977
(Percent)

| Country | Textile Industry | Clothing Industry | Textile and Clothing Industries |
|----------------------|------------------|-------------------|---------------------------------|
| Australia | 50.5 | 83.6 | 67.0 |
| Austria | 57.8 | 85.9 | 69.2 |
| Belgium | 44.6 | 86.9 | 63.2 |
| Canada | 44.9 | 74.4 | 60.2 |
| Denmark | 57.6 | 85.6 | 71.0 |
| Finland | 69.8 | 90.4 | 81.4 |
| France | 55.0 | 82.6 | 67.3 |
| Germany, Fed Rep. of | n.a. | n.a. | n.a. |
| Italy | 61.8 | 86.8 | 71.5 |
| Japan | 67.1 | 83.4 | 71.0 |
| Netherlands | 25.0 | 72.8 | 41.4 |
| Sweden | 49.8 | 75.9 | 61.4 |
| Switzerland | 45.4 | n.a. | n.a. |
| United Kingdom | 47.8 | 81.3 | 61.3 |
| United States | 46.6 | 80.9 | 66.9 |

Source: OECD (1983), Table 34.

however, various approaches that could be taken by developing countries in light of these pressures.

One is to approach the textile and clothing issues separately, as suggested above. This could be through independent initiatives or linked initiatives involving reciprocal liberalization of textiles in developing countries and clothing in developed countries. Another approach would be to build on cases where there has been successful elimination of trade restrictions, such as the case of footwear. In part it seems that this has occurred both because of the smaller employment effects involved and because of the degree of vertical integration in the industry. In footwear, unlike in textiles and clothing, one can find retailers in developed countries who also own the production facilities in developing countries. In such cases, retailers have a significant interest in preventing protection of the domestic market. Vertical integration, therefore, may be a way for developing countries to go, perhaps by modifying some of their own rules on inward foreign investment.

All of this, however, leaves two central questions for developing countries. The first is how to eliminate the MFA, and the second is what are the costs and benefits to them of doing so. First of all, it remains unclear whether the MFA is a permanent or temporary trade-restricting measure. In turn, what keeps the MFA in place, in part, is the threat of alternative trade measures should developing countries not agree to a

renegotiation of the MFA. The main threat is of Article 19 measures through global import quotas. Thus, dealing with these alternative threats, particularly through a reformed safeguards code in the Uruguay Round, may, in the long run, be the most important step that the developing countries can take to help weaken the severity of textile and clothing restrictions which they face.

Concluding Remarks

It is not clear from all of this what developing countries would be advised to do as they consider various negotiating alternatives to attempt to deal with their difficulties with trade restrictions on textiles and clothing. Indeed, it is certainly not clear that all developing countries would currently want to terminate the MFA. Whether developing countries should attempt to weaken the severity of trade restrictions affecting textiles and clothing, either by making concessions in other areas, or by attempting to weaken the severity of the threat which causes them to negotiate the MFA is perhaps the central negotiating issue.

Firmer discipline over the use of Article 19 measures through degressivity, time limits and other restrictions would clearly be important in allowing for firmer developing country positions in any MFA renegotiation. This suggests the importance of the safeguards group in the Uruguay Round for what may or may not happen in textiles and clothing. Concessions made in other groups for developed country concessions in textiles is a more difficult matter, since trading concessions on GATT-incompatible measures for new GATT disciplines by developing countries is something of which developing countries are wary. And how such trades can meaningfully be made without changes in the arrangements which produce the MFA (safeguards, countervailing and anti-dumping duties) remains unclear.

In the final analysis, one has perhaps to conclude that with a developing country position clouded by the seeming support of many developing countries for a maintenance of the MFA restrictions in the short and medium term, uncertainties as to how much the MFA actually restricts trade, and seeming adjustment occurring in a number of developed countries, our sense is that uncertainties over what the Uruguay Round can produce in the area of textiles and clothing will likely persist until the final stages of the negotiations.

Notes

This is a draft of a paper prepared for a conference on Textiles in the Uruguay Round, held at The Institute of International Economic Studies, University of

Stockholm, June 20–21, 1989. We are grateful to the Social Sciences and Humanities Research Council, Ottawa, for their support of modeling work on global trade in textiles and clothing on which this paper draws, and to Carl Hamilton for helpful comments on an earlier draft.

1. Taiwan is not formally a member of the MFA, but is nonetheless subject to bilaterally negotiated quota restrictions on its textile and clothing exports.

2. The MFA since its inception has dealt almost exclusively with exports from developing countries. Over the period, however, restraints have been applied to Japanese and some Eastern European nations' exports as well.

3. The MFA I lasted from January 1974 to December 1977; the MFA II from January 1978 to December 1981; the MFA III from January 1982 to July 1986; and the MFA IV was adopted in August 1986 and runs until July 1991.

4. Other developed countries, including Australia and New Zealand, and, for a period of time, Norway, have chosen to rely on GATT-compatible global import quotas (Article 19 measures) to restrict their imports of textiles and clothing. Australia participated in the earlier Long-Term Agreement (LTA) and in the MFA until December 1974, when the Australian government imposed global "tariff quotas" outside the MFA. New Zealand has never participated in these special arrangements although, throughout the period since 1961, imports of textiles and clothing have been subject to import licensing arrangements, the majority of which involve global quotas. Norway participated in the LTA and MFA I, but did not participate in MFA II. In 1979, Norway introduced global quotas, but these were phased out within one year after Norway accepted the 1981 Protocol of Extension to the MFA in July 1984.

5. As of September 30, 1987, these were Argentina, Bangladesh, Brazil, Bulgaria, China, Czechoslovakia, Egypt, the German Democratic Republic, Hong Kong, Hungary, India, Indonesia, Macao, Malaysia, Malta, Maldives, Mauritius, Mexico, Nepal, Democratic People's Republic of North Korea, Pakistan, Peru, Philippines, Poland, Romania, Singapore, Republic of Korea, Sri Lanka, Thailand, Turkey, Uruguay, Socialist Republic of Vietnam and Yugoslavia. Japan is also a member of the MFA as an exporting country (GATT 1987b).

6. Other restricted manufactured products include steel and steel products, machine tools, cutlery, footwear, automobiles, consumer electronics and some agricultural commodities.

7. GATT (1975), pp. 3–19.

8. In the negotiating group on textiles and clothing in the Uruguay Round, there are, however, tentative signs of an agreed commitment to eventually return the textiles and clothing sector to GATT rules. The recent Montreal Mid-Course Review produced a commitment (depending upon resolution of differences in agriculture by April 1989) to engage in substantive negotiations in early 1989 and continue until the end of the Round. Some of the more active developing countries in this group are seeking such a commitment with a clear timetable and phase-out program. Developed countries appear to want to link action in this group to progress in others, such as intellectual property. A possible outcome may be that developed countries drop their insistence on linkage, in return for developing countries dropping their insistence on specificity as to dates and details of a phase-out.

9. This progressive expansion of the MFA in terms of fiber and country coverage has been cited by one leading authority as potentially the most important negative development in world trade in recent years (Corden 1987).
10. The source for the data used in the next few paragraphs is GATT (1987), table A12. (Billion means thousand million.)
11. Chaudhry and Hamid (1988), p. 198.
12. Cline (1987), p. 180.
13. Medalla and Tecson (1988), p. 247.
14. Cable (1987), p. 625.
15. Trela and Whalley (1988).
16. *Textile Asia*, April 1976, p. 11.
17. The developing-economy exporters are: Bangladesh; Brazil; Bulgaria; China; Colombia; Czechoslovakia; Costa Rica; Dominican Republic; Egypt; Guatemala; Haiti; Hong Kong; Hungary; India; Indonesia; Republic of Korea; Macao; Malaysia; Mauritius; Mexico; Nepal; Pakistan; Panama; Peru; Philippines; Poland; Romania; Singapore; Sri Lanka; Taiwan; Thailand; Turkey; Uruguay and Yugoslavia.
18. We assume that all bilateral quotas are fully binding in the year in question.
19. Our paper only captures trade diversion effects between developed countries.
20. Kumar and McLeod (1981), p. 81.
21. Keesing and Wolf (1980), p. 131.
22. Chaudhry and Hamid (1988), p. 207.
23. Both the United States and the EC provide special tariff provisions to facilitate "outward processing trade" (OPT). For example, the U.S. tariff item 807 provides for duty-free reentry on domestic content, and while the EC has similar tariff procedures, it additionally includes OPT quotas. In addition to these programs is the newly adopted U.S. "super 807" program for the Caribbean countries, which provides quota- and tariff-free reentry on domestic content.
24. Some of the conceptual difficulties with the decomposition approach are discussed in Grossman (1982) and Martin and Evans (1981).
25. The discussion that follows draws on OECD (1983).

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3

Effects of the Multi-Fibre Arrangement on Developing Country Exporters: A Simple Theoretical Framework

Will Martin and Suphat Suphachalasai

Analyzing the Effect of the MFA on Developing Country Exporters

The MFA provides a framework under which the developed country members of the arrangement impose bilateral quota restrictions upon imports of textiles and apparel from the developing country members. Like the voluntary export restraints (VERs), which have been increasingly employed in recent years, the MFA quotas are administered by the exporting countries and, hence, potentially allow these countries to collect the quota rents associated with the arrangements.

For a single, small exporting country, an export quota for a single market which allows the exporter to retain the quota rents will generally be superior to free trade. Since free trade will be superior, from an exporter's point of view, to other forms of protection, such as tariffs which allocate the rents to the importing country, this form of quota becomes a relatively attractive option for an individual exporting country negotiating on its own.

However, the superiority of export quotas over free trade need not carry over from an individual small country to the case of a country which is large in world trade, or to a group of countries which are collectively large in world trade. In this case, the visible gains from quota

rents need to be offset against the less visible losses from lowered producer prices.

The situation becomes even more complicated when we consider the case of goods such as textiles and clothing, which are likely to be differentiated both by type and by country of origin. While the gains from quota rents in this case remain very evident to market participants, if not always easy for economists to measure, any losses are likely to be relatively difficult to observe.

In this situation, in particular, it is possible for a system of quotas to appear to be to the advantage of each country, considered alone, but to actually be to the disadvantage of all of the exporting countries. The main purpose of this paper is to provide a simple and reasonably intuitive framework in which the static effects of the MFA on the developing country exporters can be considered.

While the magnitude of gains or losses to exporters from VERs or similar measures has been examined in some recent studies (Tarr 1987; Trela and Whalley 1988), the circumstances under which such losses can occur do not appear to have been systematically examined. It is hoped that the examination of these circumstances presented in this paper will be useful for two purposes. First, it should assist those oriented toward the policy issues to better interpret and evaluate the potential gains and losses. Second, it should assist in interpreting the results of numerical models such as those of Trela and Whalley (1988) and Suphachalasai (1989), which can be something of a "black-box" unless a suitable interpretative framework is available.

In the next section of the paper, a relatively simple case of homogeneous products is considered, beginning with the unambiguous case of a single small country exporter, and then moving on to cases of relatively large exporters in which the possibility of loss from the arrangements arises. Since textiles and clothing appear to be strongly differentiated products, the implications of product differentiation for the welfare effects of the MFA are considered in the third section of the paper. Finally, some of the implications of the analysis are interpreted in the broader context of the MFA.

The Homogeneous Product Case

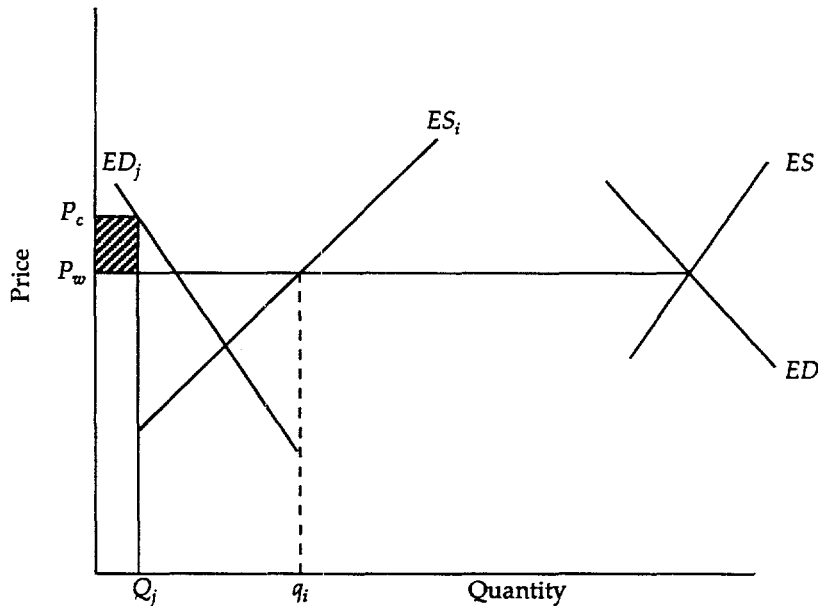
To gain some insight into the underlying issues and problems, we first analyze a product which, unlike textiles and clothing, can adequately be treated as a single, homogeneous product. Initially, we also consider only the case of a single small country which takes world prices as given and where a quota is imposed in only one small importing market.

This single small country case is depicted in Figure 3-1. Total export supply and import demand for the good under consideration are given by the horizontal sum of the export supply and demand curves for all countries involved in the production or consumption of the good. The world price P_w is determined by the equality of total export supply and export demand represented by the intersection of ES and ED on the right-hand side of Figure 3-1. The export demand curve for an individual small country is essentially horizontal at price P_w . Under free trade, country i , whose export supply curve is designated ES_i in Figure 3-1, exports q_i units of output at price P_w .

Assume now that an import quota is introduced into a single small market such as import market j . In Figure 3-1, this import quota is represented by the vertical line Q_j . The introduction of this quota causes the price in market j to rise to P_c . If the quota Q_j is allocated entirely to supplying country i , then country i will gain quota rents depicted by the shaded area under the import demand curve ED_j . Under these circumstances, country i has unambiguously gained. It still produces amount q_i , but now receives the rents $(P_c - P_w) \cdot Q_j$ in addition to its revenue from sales at the world market price P_w .

This felicitous result (for the exporter) does not automatically apply in the case where the exporter is a large country. In this case, a restriction

Figure 3-1 Effects of a Quota in a Single Export Market



on imports will have negative effects on the price received by producers, and the gains obtained through quota rents must be offset against the losses resulting from a reduction in the volume of exports.

Figure 3-2 deals with a situation where total world import demand, depicted by curve ED , is restricted by a global quota of Q^* . In the absence of a quota, the world price, P_w , is given by the intersection of the world export supply curve ES and the world import demand curve, ED . The imposition of the quota reduces the quantity traded from Q^e to Q^* and raises the price in the importing market from P_e to P_c . However, the price received by export producers falls to P_p , unless the producers themselves receive the quota rent which is shown by the hatched area between the price lines P_c and P_p .

In this case of a global quota, the exporting countries may conceivably lose even if they receive all of the quota rents. In terms of Figure 3-2, this will depend upon whether the gains associated with the rise in the price in the restricted market, $(P_c - P_e) \cdot Q^*$, exceed the loss of additional returns from being able to produce and export as much as desired. This loss is shown by the triangular shaded area, abd , above the export supply curve.

In this global quota case, it is extremely unlikely that the gains from the quota rents would be outweighed by the losses in exporter surplus indicated by area abd . The loss in net returns from being able to export freely is likely to be only a small fraction of the value of the forgone exports because the reduction in output allows a reduction in production costs and stimulates domestic demand.

While the situation in Figure 3-2 illustrates one of the issues involved in assessing the effects of the MFA on the exporters of textiles and apparel, the price-depressing effects of export restrictions, it does not correspond fully with the actual nature of these restrictions. Since the MFA involves restrictions only on imports into the major developed country markets, at least two import markets must be considered in even the simplest representation of the MFA.

Such a highly simplified representation of the MFA is depicted in Figure 3-3. In this figure, total import demand consists of two components, D^* and D' , with D^* being the net demand for imports by the developed countries and D' the demand for imports by the rest of the world. Total world demand corresponds to the curve ED in Figure 3-2. The total supply of exports from the developing countries is given by the excess supply curve ES . In the absence of a quota, the world price, P_e , is that at which total import demand equals total export supply.

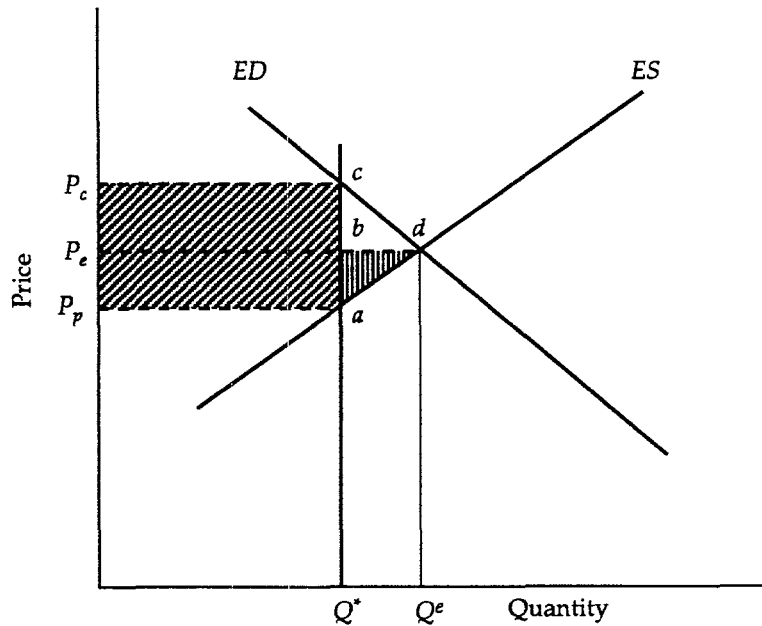
The MFA imposes restrictions on the volume of imports from the developing country members of the MFA to the developed country markets. Restrictions of this type might, in principle, be represented by the quota limit Q . The imposition of such a quota reduces total world

import demand, shifting the world demand curve to the left to the new, kinked demand curve $EDab$. Following imposition of the quota, the world price falls to P_p , which increases consumption in the rest of the world. In this case, in contrast with the quota on global imports considered in Figure 3–2, the exporters are able to divert some of their products onto other export markets.

Whether the exporting countries gain or lose from the quotas in this case depends upon similar principles to those arising in the global quota case considered previously. However, in this case, the losses to be considered include those induced by a price reduction on products diverted to unrestricted markets.

There is certainly the possibility of the exporters gaining from quotas in this situation. If the exporters collectively acted as price discriminating monopolists, they could maximize their returns for any given quantity by setting higher prices in the less price-responsive markets and lower prices in the more price-responsive markets. However, since the quotas are set by the importers rather than the exporters, quota levels are not set with the welfare of the exporters in mind. A loss to the exporters is clearly also possible if prices are raised in the more price-responsive markets, necessitating increased sales in less price-responsive markets.

Figure 3–2 Effects of a Global Import Quota—Large Country Case



As in the global import quota case depicted in Figure 3-2, the relative magnitude of the gains and losses to the exporters will depend upon the relative price responsiveness of different markets. For any given reduction in imports into the restricted market, the extent of the price rise will depend upon the elasticity of import demand. The extent of the price fall in the rest of the world will depend upon both the elasticity of import demand in the rest of the world and the elasticity of export supply from the exporting countries.

While the simple model depicted in Figure 3-3 could be used to make an initial estimate of the static effects of the MFA on the developing country exporters, two important features of the world market for textiles and apparel are inconsistent with the assumptions of this model. These features are the existence of some apparently unconstrained exports from the developing countries to the developed country markets (Cline 1987, p. 157) and the existence of significant two-way trade in textiles and apparel.

While accurate data on quota utilization rates under the MFA are notoriously difficult to obtain, some indication of the proportion of total imports of textiles from developing country exporters which are subject to the MFA quotas can be gleaned from sources such as GATT (1984, p. 94-98), Cline (1987, p. 157), Trela and Whalley (1988, p. 20), Erzan, Goto

Figure 3-3 Effects of a Quota in One Major Market

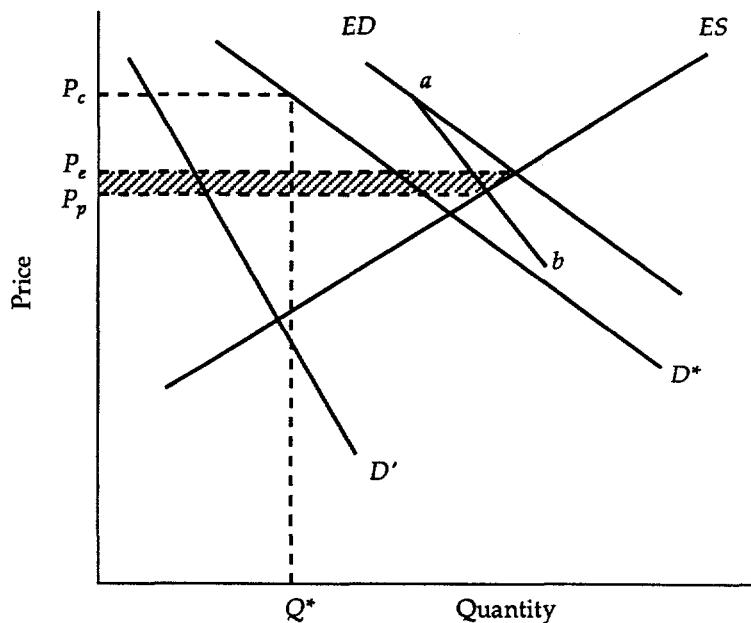


Table 3-1 Trade Flows in the World Market for Apparel, 1986
(US\$billion)

| Importer | MFA Importers | MFA-Exporters | Rest of the World | Total |
|-------------------|---------------|---------------|-------------------|-------|
| Exporter | | | | |
| MFA Importers | 15.6 | 0.9 | 2.1 | 18.6 |
| MFA Exporters | 20.6 | 3.7 | 1.9 | 26.2 |
| Rest of the World | 1.5 | 0.1 | 0.2 | 1.8 |
| Total | 37.7 | 4.7 | 4.2 | 46.6 |

Note: 1 Billion = thousand million.

Source: United States Trade Data Tapes, International Economic Data Bank, Australian National University.

and Holmes (in this volume), Hamilton and Kim, (in this volume) and Kumar and Khanna (in this volume). In each of these sources, it appears that a substantial proportion (frequently over half) of imports of textiles and clothing from developing countries are not subject to formal restrictions.

These data probably substantially understate the restrictive effects of the MFA because of the existence of binding aggregate quotas in some cases where quota coverage rates are based on individual category quotas, and the inclusion of redundant quotas in the measures of total quotas. Despite this, it is clear that the assumption of a single, binding quota made in Figure 3-3 is unrealistically strong.

The coexistence of some apparently unrestricted exports from the MFA exporting countries with positive quota premiums for export quotas (Hamilton 1986) is strong evidence of the existence of product differentiation within textiles and apparel. If these products could be treated as homogeneous, the unrestricted products would drive the restricted products out of the import market.

Another indicator of potential difficulties in applying the simple homogeneous product model depicted in Figure 3-3 is the existence of substantial two-way trade in apparel. From the data presented in Table 3-1, it is clear that there is a substantial volume of two-way trade in apparel, particularly for the aggregate rest of the world group. Based on the 1986 data presented in the table, this group was a net importer, but also contributed a substantial volume of exports to the MFA importing countries.

Given these clear indicators that textiles and clothing need to be treated as differentiated products, the issues which arise when these products are treated as such clearly require examination.

The Differentiated Product Case

Once the general decision to treat textiles and apparel as incorporating a range of differentiated products has been taken, a number of specific decisions about the form of product differentiation and its implications for the behavior of producers and consumers need to be taken.

The traditional approach to categorizing differentiated products in empirical models of international trade has been by country of origin (Armington 1969). This categorization, implying that Italian suits, for example, are likely to be viewed as a different product from, say, Chinese suits, seems a reasonably plausible characterization of the apparel market, but is incomplete given the existence of both restricted and unrestricted exports from the same countries.

If detailed data on which specific products are subject to restriction are available, then this classification of restricted products may be made with or without differentiating between products by country of origin. In their pathbreaking study, Trela and Whalley (1988) used disaggregated data on product types without differentiating by country of origin. A possible approach allowing coverage of the many countries where sufficiently detailed and reliable data on the composition of products by type are not available is to categorize exports into the MFA importing markets into restricted and unrestricted products, depending upon the share of total imports from each country reported as being assigned to each of these categories. Suphachalasai (1989) combined this approach with differentiation of products by country of origin.

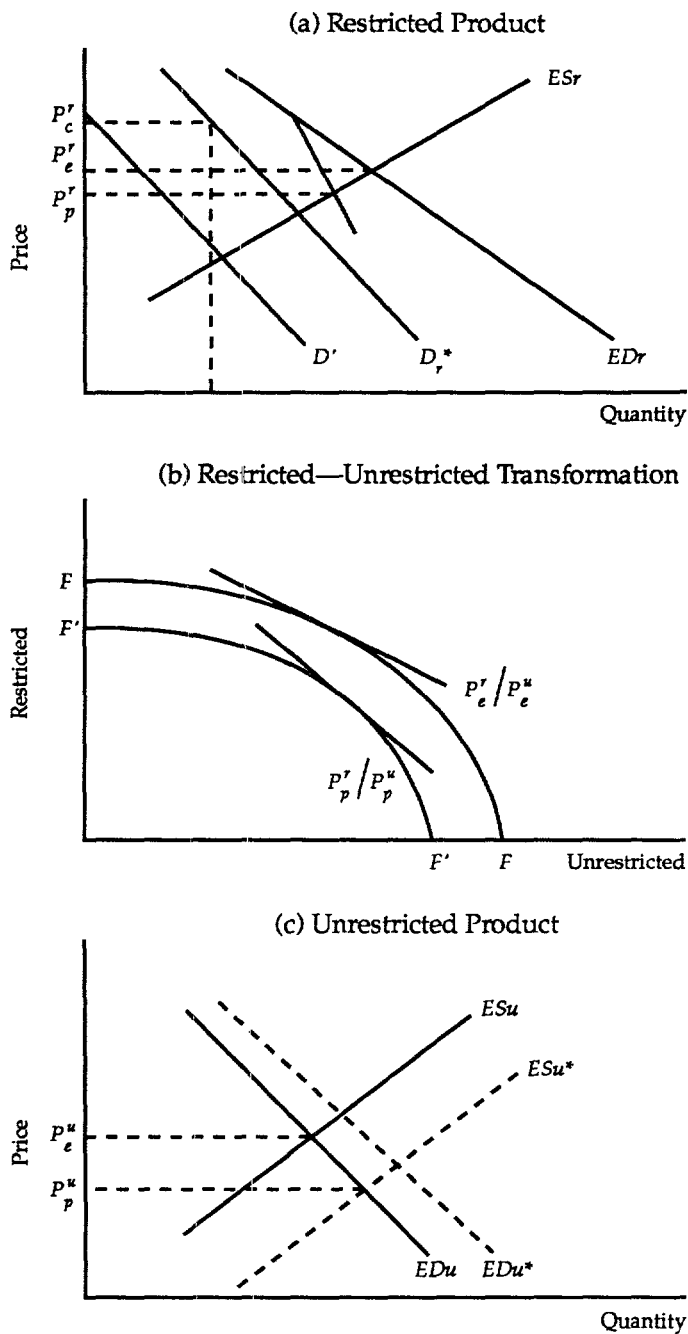
Given these decisions, the analysis of the effects of the MFA on the exporting countries can proceed along similar lines to the homogeneous product case. The same issues of quota rents in the restricted markets and price-depressing effects in the world market for these products will arise, and the balance of these positive and negative effects will determine the outcome as in the homogeneous product case. However, the results will, in this case, depend upon the interactions between the two markets: for restricted and unrestricted products.

The much greater complexity of the models required and the range of possible modeling approaches, together with the extreme scarcity of reliable parameter estimates, makes it likely that the results obtained will vary substantially among different models. Thus, a relatively simple framework in which the effects of different assumptions can be investigated seems very useful.

The major features of a simple framework for understanding the effects of the MFA in the context of differentiated products are summarized graphically in the three panels of Figure 3-4.

The first panel of Figure 3-4, Figure 3-4(a), shows the market for those products which are subject to MFA quota restrictions. On the assump-

Figure 3-4 Effects of the MFA in the Case of Differentiated Products



tion that these restricted products are exported to markets in the rest of the world, as well as to the MFA importing markets, this panel has the same general structure as Figure 3-3. A key difference, however, is likely to lie in the level and slope of the demand curve for the restricted product. Since the restricted products make up only a part of total imports to the MFA importing countries, the quantity of restricted products will be less than the total quantity of imports. Thus, quota rents will accrue on only a portion of total imports, rather than on all imports as would be assumed in the homogeneous product framework.

The magnitude of the elasticity of demand for the restricted product will depend upon the ease of substitution between the restricted imports and other products, as well as on the elasticity of demand for textiles and apparel in total. If the restricted imports are close substitutes for domestically produced products, or for nonrestricted imports, then the elasticity of demand for the restricted product is likely to be larger than the elasticity of demand for total textiles and apparel. The higher the elasticity of demand for the restricted imports, the smaller will be the increase in price for any given volume-quota constraint, and hence the smaller the gains accruing to exporters in the form of quota rents.

Another important feature of the import demand for textiles and apparel, treated only implicitly in Figure 3-4(a), is the nature of substitution between restricted textile products and other products. If restricted imports are close substitutes only for unrestricted imports, then the increase in the consumer price of the restricted product will spill over strongly into the demand for unrestricted imports. If, on the other hand, the restricted imports are similarly close substitutes for domestically produced products as well as for imports, the resulting stimulus to the demand for unrestricted imports is likely to be relatively weaker.

The losses associated with the reduced price of the restricted product in unrestricted markets, depicted in Figure 3-4(a), will depend upon the price responsiveness of export supply, and the price responsiveness of export demand for these products in the rest of the world, as well as on the volume of these exports.

The price responsiveness of export supply from the developing country exporters will depend in part on the ease with which productive resources can be reallocated between the production of restricted and unrestricted products, as will be discussed below. The elasticity of import demand for these products in the rest of the world will depend upon a number of factors, including the presence of nontariff barriers, which appear to be prevalent also outside the MFA (Silberston 1984, p. 60-62; GATT 1984, p. 127-9; Cline 1987, p. 155-8), and the share of imported textiles and apparel in total consumption.

The lower are the elasticities of export supply from the MFA exporters and of import demand from the rest of the world, the greater will be the

price-depressing effect of any given quota on the world price of the restricted textile and apparel products, and the larger the losses in this market.

If the elasticity of substitution in the import market is relatively high and the ability to transfer between restricted and nonrestricted products in production is relatively low, as assumed by Trela and Whalley (1988, p. 23), then the gains from quota rents will be substantially less than in the homogeneous product case. The losses from a depressed price of "restricted" products may well be substantial because production cannot readily be transferred out of the production of restricted goods into the production of unrestricted goods.

The production possibility frontier for textiles and clothing presented in Figure 3-4(b) is intended to illustrate two important responses to the decline in the producer price of restricted textile and apparel products. The decline in the price of the restricted products can be expected to cause producers to substitute away from the production of (and domestic consumers to substitute towards consumption of) the restricted product. The reduction in the price of textiles as a group can also be expected to cause an output reduction effect, illustrated by the inward movement of the production possibility frontier to the dashed internal frontier ($F'F'$).

The stronger are both the substitution and output effects in production and consumption, the higher will be the export supply elasticity in Figure 3-4(a), and hence the smaller will be the decline in the producer price of the restricted products. If, however, the supply responsiveness of export supply is high because it is easy to transform between restricted and unrestricted textile and apparel products, then the quotas in the restricted market are likely to provide a greater stimulus to the supply of the unrestricted imports and hence depress prices in this market to a greater degree.

The market for unrestricted textile products is, as discussed above, likely to be affected by substitution and output effects in both supply and demand. This is reflected in Figure 3-4(c), where the position of both the excess supply and the excess demand curve are affected by developments in the market for the restricted product. The major determinant of welfare effects in this market is likely to be the effect on the price of unrestricted products which, in turn, depends upon the relative magnitude of the shifts in the ES_u and ED_u curves.

The increase in the price of the restricted product in the developed country market can be expected to stimulate the demand for the unrestricted product in this market as consumers substitute away from the more expensive restricted product, and domestic producers switch toward the restricted product. This effect is shown as a rightward shift in the ED_u curve in Figure 3-4(c).

The movement around the production possibility frontier, together with the reduction in aggregate output of textiles and clothing depicted in Figure 3-4(b), is associated with the rightward shift of the ES_u curve in Figure 3-4(c).

The implications of these shifts in both the excess demand for and the excess supply of the unrestricted products depend on the relative magnitude of the two effects. Even if the substitution effect in demand is strong, as in Trela and Whalley (1988), but involves substitution into domestic products as well as into unrestricted imports, the effect on demand for the unrestricted products is likely to be small. The extent of the shift in the ES_u curve in Figure 3-4(c) will then largely determine the magnitude of the consequences for the price of the unrestricted products. The specification of a low elasticity of transformation between restricted and unrestricted products, such as the value of 0.5 assigned by Trela and Whalley, will tend to reduce the magnitude of the price-depressing effects in the market for unrestricted products.

The graphical analysis presented above highlights the sensitivity of the results of models of the effects of the MFA to some of the parameter values used. Unfortunately, at this stage, reliable estimates of the crucial market parameters are not available. Thus, it appears important to examine the sensitivity of the key welfare results to alternative model specifications and parameter value assignments.

The recent model of world trade in apparel developed by Suphachalasai (1989) complements the Trela and Whalley (1988) analysis by examining a model using a somewhat different specification of the key substitution and transformation relationships. In particular, restricted and unrestricted products are assumed to compete directly in the developed country markets, while a composite imported good competes with domestic products at the next level of nesting. A much lower elasticity of substitution in demand (1.0 rather than 5.0) is specified. On the production side, a somewhat higher elasticity of transformation between restricted and unrestricted products (1.0 rather than 0.5) is specified, causing a larger stimulus to output in the unrestricted product market.

Suphachalasai's results point to a smaller, but still substantial, loss to the developing country exporters as a result of the MFA. Covering only the apparel sector, and with a slightly smaller trade volume than that covered by Trela and Whalley, Suphachalasai (1989, p. 188) estimated the static welfare loss to the developing countries of the MFA quotas to be in the order of US\$1.8 billion as compared with the estimate of US\$ 4.8 billion obtained by Trela and Whalley (1988, p. 31). Suphachalasai's result appears to be very sensitive to the degree of substitutability between restricted and unrestricted products, with an increase in the elasticity of substitution between these groups to 5.0 resulting in a

massive increase in the estimated loss, to almost US\$10 billion (Suphachalasai 1989, p. 190).

Even at this early stage in modeling the effects of the MFA, it seems clear that the results of quantitative models will depend heavily on the specific parameter values used in these analyses. However, the comparison above from two recent models suggests that the specification of the degree of substitutability between restricted and unrestricted products in both production and consumption is likely to be particularly important. Obtaining improved estimates of these parameters would seem likely to be a high priority in future modeling exercises.

Implications and Extensions

The analysis presented above is intentionally simplified and stylized in order to highlight some of the key economic consequences of the MFA not brought out in many previous analyses. A cost of such stylization is that considerable care must be used in applying the results to the real world. Before attempting to analyze the effects of the MFA, several features of the world market for textiles and apparel would appear to require particular attention.

The highly dynamic nature of world trade in textiles and apparel may, at first sight, seem to call into question the relevance of a simple static framework of the type considered here. In fact, however, this feature seems to present few problems as long as the limitations of the framework are recognized and it is applied appropriately.

The approach discussed above, and implemented in recent modeling work addressed to this question, can be seen as providing a snapshot of the effects of the MFA at particular stages in the development of the textile and clothing sector. As discussed in Anderson (in this volume), this industry is quite mobile over time, with production moving internationally in response to changes in technology and factor prices. If the industry were truly static, the long-run supply curves for clothing would be essentially horizontal given the limited need of this industry for factors which are in long-run fixed supply. Only in the dynamic context where supply curves are likely to be upward sloping does the possibility of a loss to the developing country exporters emerge.

Two other related factors which need to be taken into account in a complete evaluation of the impact of the MFA on the developing country exporters are the apparently somewhat porous nature of these restrictions in the past (Cline 1987), and the ability of developing country exporters to reduce the impact of the arrangements to some degree by upgrading product quality within quota categories. These factors would seem to require modification, rather than rejection of the framework

outlined in this paper. Incorporation of these options would seem to involve representing the "quota" constraints as an upward sloping, but no longer vertical, line. While the magnitude of the estimated effects would be likely to be affected by the incorporation of these opportunities, the basic nature of the analysis would not be greatly affected.

Another important feature of the MFA which will undoubtedly affect individual countries' evaluations of the MFA is the share of their exports which benefits from quota premiums. While detailed data on the allocation of exports into restricted and unrestricted categories are difficult to obtain, an initial indication is provided by the distribution of each country's exports to MFA and non-MFA markets. From the data presented in Table 3-2, it is clear that there is a very wide variation in the share of each country's exports which are exported to the MFA-restricted markets.

In general, the data presented in Table 3-2 seem consistent with a pattern in which low-cost, but later emerging exporters such as Thailand and China ship larger shares of their exports to non-MFA markets. Given the analysis presented above, the higher the share of total exports receiving quota premiums, the more likely it is that an individual country will gain as a result of the MFA. Even if the developing countries as a whole lose from the MFA, some individual countries with large shares of their exports to restricted markets may gain. The overall gain or loss position of the developing country exporters remains important since it will determine the outcome for an "average" country. If gains can only accrue to a small number of countries with above-average quota

Table 3-2 Shares of Textiles and Apparel Exports to MFA Quota and Non-quota Markets by Selected Countries, 1983.
(percent)

| Country | Quota Share | Non-quota |
|------------------------|-------------|-----------|
| Brazil | 73 | 27 |
| China | 52 | 48 |
| Hong Kong ^a | 93 | 7 |
| India | 87 | 13 |
| Indonesia | 78 | 22 |
| Mexico | 99 | 1 |
| Pakistan | 47 | 53 |
| Philippines | 92 | 8 |
| Republic of Korea | 71 | 29 |
| Sri Lanka | 98 | 2 |
| Thailand ^b | 53 | 47 |

a. 1986.

b. 1987.

Sources: United States International Trade Commission (1987); GATT (1987); Ministry of Trade, Thailand.

shares, the MFA in general will be much less attractive to the developing countries as a group.

One final issue worth consideration is the impact of the MFA on developing country exporters of fibers, including many of the relatively poor countries of Africa (Hamza 1989). For these countries, there are no offsetting benefits in the form of quota rents. By distorting the production of textiles and apparel away from its most efficient location, and possibly also from natural to synthetic fibres, the MFA reduces the final demand for apparel and hence can be expected to reduce the derived demand for natural fibers.

In all of the models discussed in this paper, the assumption has been made that the developing countries are successful in obtaining the rents which result from the MFA restrictions. This would certainly be expected under competitive conditions. However, some commentators (and a referee) have argued that the market for textile products is not competitive, but rather dominated by a few large multinational retail chains. Given the apparent ease of entry into various segments of the trade over time, we are sceptical that the market power of the purchasers is very substantial. If, however, market power on the part of purchasers were significant, it would make the effects of the MFA unambiguously worse for the developing country exporters, both by reducing the demand for products and potentially also by forcing some sharing of the quota rents.

Conclusions

The purpose of this paper was to provide a relatively simple qualitative framework for assessing the impact of the MFA on the developing country exporters, both for policy analysis and as an aid to interpreting the results of quantitative models.

To illustrate the nature of the problem and the issues involved, some relatively straightforward cases of quota constraints were first examined under the simplifying assumption of homogeneous products. In the well-known small-country case where the exporter receives the quota rent, the exporter can only gain when a quota is applied in a single, small import market. It was also shown that this result does not necessarily apply in the large country case of a global import restriction applied in all markets.

In a situation such as the MFA, where one substantial component of the export market is restricted, a significant possibility that the exporters will lose emerges. In this case, the gains from quota rents must be offset against reductions in prices obtained on products supplied to unrestricted markets.

Given substantial evidence that textiles and apparel are differentiated products, the analysis was extended to a differentiated product framework. While the situation becomes considerably more complex in this case, it is clear that there remains a real likelihood of the exporters losing from the restrictions.

Two recent studies using quantitative models to analyze the short-run effects of the MFA were considered. Both of these studies concluded that the developing countries as a group lose from the MFA, although the magnitude of the estimated loss was substantially different. It seems likely that the differences in results arise from differences in the values of some of the key parameters on which the available evidence is currently limited.

Some of the possible extensions which might be made in applying the results to the MFA were considered, including the dynamic nature of the industry, the partial permeability of the quotas in the past, the distribution of quotas between countries and the impact on developing country fiber exporters. While the simple framework presented in this paper would require significant extension to address these questions in detail, the basic framework seems likely to provide a useful starting point for the analysis of these questions. It certainly highlights the potential for the developing countries to lose as a consequence of "hidden" losses resulting from the MFA while appearing to gain because of the relatively obvious quota rents distributed to the exporting countries.

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4

Effects of the Multi-Fibre Arrangement on Developing Countries' Trade: An Empirical Investigation

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Summary

The paper addresses two issues: (i) the extent of the restrictiveness and effectiveness of the Multi-Fibre Arrangement (MFA) with respect to developing country exporters of textile products during the 1980s, and (ii) the extent to which these restrictions yield trade gains for the unconstrained and less-established developing suppliers.

Based on the analysis of the developments in the markets of the European Community, United States, Canada and Sweden during the 1980s, the following observations can be made: (i) There was a tightening in the MFA restrictions over time and across markets, especially for the relatively new suppliers, in terms of the share of shipments subjected to quotas and these limits becoming effective constraints. The grip of the MFA was tighter on clothing than on textiles, yet the pattern across markets and over time was the same for both. (ii) Volume growth was generally lower in cases where quotas were binding. (iii) Increase in the unit value of shipments subject to binding quotas was substantially higher than that in unconstrained items.

As to the extent of trade gains due to the MFA by less restricted developing suppliers, the following was found: (i) In products for which major developing exporters had binding quotas, other developing suppliers somewhat increased their market share. (ii) An illustrative appli-

cation of a simulation model to a representative sample of apparel imports of the United States which were predominately supplied by developing countries indicated that trade diverted to unconstrained developing suppliers taken as a whole accounted for probably less than 15 percent—in the most extreme scenario 25 percent—of their exports. The main beneficiary in terms of absolute magnitudes were the U.S. domestic producers.

The paper has two messages: (i) The MFA has not been easing; on the contrary, it has been getting tougher for most developing exporters, and (ii) Trade gains for less-established exporters resulting from the MFA restrictions on others may be exaggerated, except for marginal suppliers.

Introduction

The paper addresses two issues: (i) the extent of the restrictiveness and effectiveness of the MFA with respect to the developing country suppliers of textile products during the 1980s, and (ii) the extent to which these restrictions yield trade gains for the unconstrained and less-established developing suppliers.

That there has been an escalation in the product and country coverage of restrictions in major industrial markets under the MFA during the 1980s is well documented (by the GATT Textiles Surveillance Body and Raffaelli in this volume). However, attempts to apply some measure to this apparent change in the restrictiveness and, more generally, the potency of the MFA in distorting trade and investment face two major problems, bar the common methodological questions. The first set of problems relates to the complexity of the management of the restrictions under MFA. Various provisions of "flexibility," that is, "swing," "carry-over," "carry-forward" and their often nonsystematic application make a precise identification of the *ex ante* effective quotas virtually impossible.

The second set of difficulties is of a statistical nature and stems from the ways in which products are grouped, quotas are specified and data on actual shipments are compiled. Each importer defines its own MFA groups, mainly based on the sensitivity of the products for its domestic industry. Quotas are specified and monitored in volume terms and often the statistics pertain to the MFA groups rather than the underlying national tariff classifications. While import values for the products are available per tariff line, these sometimes are not matched with the MFA groups.¹ Furthermore, detailed national nomenclatures match with international trade classifications only at more aggregate levels.

To remedy some of the statistical problems faced in analyzing the trade effects of the MFA, an effort is being made at the World Bank to

construct a consistent data base (see Appendix A). Currently, this data base covers the markets of the European Community, United States, Canada and Sweden.

Using this data base, first, in the following section, the developments in the markets under question are reviewed in terms of the share of trade subject to bilateral restrictions, quota utilization rates and shipments which fall under binding quotas. In the following sections, the supply and market response of individual developing exporters is characterized on the basis of the proportion of their trade covered by quotas and their average quota utilization rates. This two-dimensional characterization is then used to trace the pattern in the tightening of the MFA restrictions over time.

While the first two sections attempt to evaluate some aspects of the evolution in the use of the MFA restrictions in relation to the performance of the suppliers facing them, the following section on "Price and Volume Effects of Binding Quotas" studies the changes in the volume and unit value of shipments subject to highly and fully utilized quotas as evidence of the restrictiveness and effectiveness of the MFA. This also constitutes a test of our working definition of a binding quota which we identify by utilization rates.

As to the second question addressed concerning trade diversion, trade in products which were subject to binding quotas for the major established exporters are traced to determine which foreign suppliers tended to benefit. Finally, as an illustration of the possible scope of trade diverted to unconstrained developing exporters, a simulation model is applied to the major clothing imports of the United States which were predominantly supplied by developing countries.

A concluding section relates the findings of the paper to the theme of this volume.

Trends in Major Markets and a Typology of Suppliers under the MFA

The European Community (EC) and United States accounted for 37.8 and 40 percent, respectively, of OECD² imports of textile fibers, textiles, clothing and other textile goods—henceforth *textile products*³ from developing countries⁴ in 1987. With the inclusion of two smaller economies, Canada (3.3 percent) and Sweden (1.4 percent), they represented 82.6 percent of this market. From 1981 to 1986, the share of their combined imports of textile products from developing countries in imports from all sources increased from 60 to 64 percent.⁵ In 1987 there was a rapid surge to 69 percent.⁶

Table 4-1 Share of Developing Countries in Imports of the EC, United States, Canada and Sweden in All Textile Products and Indicators of the Coverage and Restrictiveness of the MFA, 1981-87 (Percent)

| | I | II | III | IV | V |
|-----------------|------------------------|-------------------|-------------------|--------------------|--------------------|
| | Import | Restricted | Imports | Imports | Average |
| | share of | imports | from | from | quota |
| | developing | from | developing | developing | utilization |
| | countries ^a | developing | countries | countries | rates ^e |
| | | countries | subject to | subject to | |
| | | (trade | binding | binding | |
| | | coverage | restrictions | restrictions | |
| | | ratio or | (BIND/ | (BIND/ | |
| | | (REST/ | TOT) ^c | REST) ^d | |
| | | TOT) ^b | | | |
| EC ^f | | | | | |
| 1981 | 56.5 | 40.3 | 20.8 | 51.7 | 68.3 |
| 1982 | 57.0 | 39.7 | 20.1 | 50.5 | 67.5 |
| 1983 | 57.9 | 40.4 | 18.6 | 46.0 | 69.5 |
| 1984 | 58.5 | 39.9 | 18.3 | 45.9 | 71.6 |
| 1985 | 57.2 | 39.1 | 18.8 | 48.2 | 63.4 |
| 1986 | 58.6 | 38.9 | 25.4 | 65.3 | 74.5 |
| 1987 | 67.1 | 36.2 | 21.9 | 60.7 | 82.1 |
| 1981-87 | 59.7 | 38.8 | 20.9 | 54.0 | 72.1 |
| U.S. | | | | | |
| 1981 | 77.6 | 52.5 | 37.9 | 72.1 | 67.7 |
| 1982 | 79.2 | 51.0 | 37.5 | 73.4 | 64.0 |
| 1983 | 79.2 | 56.1 | 43.9 | 78.3 | 77.4 |
| 1984 | 77.2 | 54.8 | 39.2 | 71.5 | 67.8 |
| 1985 | 75.7 | 53.4 | 35.5 | 66.5 | 77.0 |
| 1986 | 76.0 | 57.2 | 45.0 | 78.8 | 80.8 |
| 1987 | 78.6 | 61.9 | 47.5 | 76.7 | 81.8 |
| 1981-87 | 77.5 | 56.2 | 41.8 | 74.3 | 75.0 |
| Canada | | | | | |
| 1981 | 35.3 | 47.9 | 19.1 | 39.9 | 73.4 |
| 1982 | 38.9 | 54.5 | 37.5 | 68.9 | 80.4 |
| 1983 | 40.6 | 52.8 | 46.3 | 87.7 | 90.4 |
| 1984 | 43.7 | 50.8 | 45.9 | 90.4 | 92.4 |
| 1985 | 42.8 | 51.9 | 41.3 | 79.5 | 89.6 |
| 1986 | 46.3 | 49.6 | 42.4 | 85.5 | 88.1 |
| 1987 | 49.9 | 54.2 | 37.1 | 68.6 | 84.7 |
| 1981-87 | 43.3 | 51.8 | 39.4 | 76.0 | 86.1 |

Table 4-1 (continued)

| | I | II | III | IV | V |
|-----------------------------|------------------------|-------------------|-------------------|--------------------|--------------------|
| | Import | Restricted | Imports | Imports | Average |
| | share of | imports | from | from | quota |
| | developing | from | developing | developing | utilization |
| | countries ^a | developing | countries | countries | rates ^e |
| | | countries | subject to | subject to | |
| | | (trade | binding | binding | |
| | | coverage | restrictions | restrictions | |
| | | ratio or | (BIND/ | (BIND/ | |
| | | (REST/ | TOT) ^c | REST) ^d | |
| | | TOT) ^b | | | |
| Sweden | | | | | |
| 1981 | 24.2 | 53.1 | 24.6 | 46.4 | 82.2 |
| 1982 | 25.2 | 61.7 | 41.1 | 66.5 | 88.7 |
| 1983 | 24.0 | 60.0 | 22.2 | 36.9 | 85.6 |
| 1984 | 24.4 | 59.4 | 29.6 | 49.8 | 85.9 |
| 1985 | 23.0 | 57.5 | 34.5 | 60.0 | 81.9 |
| 1986 | 23.5 | 54.8 | 45.3 | 82.6 | 93.2 |
| 1987 | 26.4 | 49.9 | 43.9 | 87.9 | 97.9 |
| 1981-87 | 24.5 | 55.7 | 36.1 | 64.7 | 88.2 |
| EC, U.S., Canada and Sweden | | | | | |
| 1981 | 60.3 | 46.1 | 28.1 | 61.0 | 68.6 ^g |
| 1982 | 62.1 | 45.9 | 29.1 | 63.4 | 66.9 ^g |
| 1983 | 63.7 | 49.0 | 32.4 | 66.2 | 75.3 ^g |
| 1984 | 64.7 | 48.8 | 31.2 | 63.8 | 70.5 ^g |
| 1985 | 63.6 | 47.9 | 29.4 | 61.3 | 73.4 ^g |
| 1986 | 64.1 | 49.2 | 36.8 | 74.8 | 79.3 ^g |
| 1987 | 69.2 | 49.6 | 35.3 | 71.2 | 82.3 ^g |
| 1981-87 | 64.5 | 48.4 | 32.4 | 67.1 | 74.7 ^g |

Note: See footnote 36 for definition of developing countries. The shares (columns I-IV) are value shares. Utilization (column V) is based on quantities. Textile products are defined broadly as all goods covered by MFA categories of any of the importing countries at any point in time during the 1981-87 period and consist of SITC (rev.2) 26 + 65 + 83 + 84 + (6123 + 62103 + 66494 + 82122 + 85104 + 85105 + 89594 + 89984).

a. As percentage of total imports of textile products.

b. Restricted imports: imports subject to bilateral quotas. As percentage of total imports from developing countries.

c. Imports subject to binding restrictions: shipments for which quota utilization rates were 90 percent or higher. As percentage of total imports from developing countries.

d. As percentage of restricted imports from developing countries.

e. A maximum of 115 percent quota utilization was allowed in taking averages across MFA categories.

f. 1981-1986 EC(10), 1987 EC(12). Trade shares exclude intra-EC trade.

g. Approximate weighted average across markets using restricted trade values as weights.

Source: World Bank computer files on MFA and UNSO COMTRADE Data Base (see Appendix A).

Against this background, we introduce four indicators of the coverage, and indirectly of the restrictiveness, of the MFA: (i) restricted imports, that is, imports subject to bilateral quotas, as a percentage of total imports of textile products from developing countries (*REST/TOT*); (ii) imports from developing countries subject to "binding quotas" (defined by utilization rates of 90 percent and above) as a percentage of total imports from developing countries (*BIND/TOT*); (iii) imports from developing countries subject to binding restrictions as a percentage of restricted imports from developing countries (*BIND/REST*); finally, (iv) average quota utilization rates.⁷ These four indicators are presented, respectively, in columns II to V of Table 4-1 for the EC, United States, Canada, Sweden, and their aggregate, for the period 1981-87.

It should be stressed that these indicators are only probabilistic yardsticks of the restrictiveness of the MFA: Trade subject to quotas is more likely to be harassed than trade which takes place outside quotas. Higher quota utilization rates and increasing proportions of shipments reaching quota limits entail greater probability of cases of export restraint and outright rejection of import licenses. Nevertheless, even full quota utilization concerning a certain shipment does not necessarily imply a binding constraint since the quota could be "just redundant," meaning that shipments could have been exactly the same had there been no quota.⁸ This latter question is addressed in the following section, and the link between high utilization rates and their restraining effects is established.⁹

As a snapshot of the overall situation, as well as to clarify the content of the indicators, we first review the developments in the aggregate of the four markets. The trade coverage ratio of restrictions, *REST/TOT*, with all developing countries in its denominator, was rather stable in a narrow range of 46 to 50 percent over the period. Given the fact that new suppliers were drawn into the MFA and additional products were put under quotas, a stable trade coverage ratio implies a disproportionate expansion of the imports of nonrestricted products.¹⁰ This is the reflection of a relative slowdown in imports which were subject to quotas.

It should also be noted that the relatively low overall coverage ratio of 46 to 50 percent is due to the exhaustive definition of textile products used in the denominator. As the MFA product categories are market-specific for consistency across markets, a "universal" set of textile products was defined in terms of the SITC to serve as a common denominator.¹¹

The second indicator, *BIND/TOT*, as it has trade subject to binding quotas in its numerator, gives the share of trade which is effectively restricted. This indicator has increased by roughly one-third, from 28 to 35 percent, during the 1981-87 period. The third measure, *BIND/REST*, is more focused and stands as a proxy for the restrictiveness of the

quotas. This already had a high value of 61 percent in 1981 (and as the *REST/TOT* ratio remained stable), it has increased proportionately with *BIND/TOT*, to 71 percent in 1987. Finally, the overall average quota utilization in the four markets,¹² an alternative proxy to *BIND/REST*, increased, with some cyclical swings, from 69 percent in 1984 to 82 percent in 1987.

Developments in Individual Markets

There are considerable differences among the markets considered in terms of the share of imports from developing countries in textile products. While Sweden received, on average, only one quarter of its imports from developing countries, this share was over three quarters for the United States. Imports from developing countries accounted for, on average, 60 percent of the EC's imports of textile products. The relatively low figures for the EC and Sweden are in part due to the European Free Trade Association (EFTA), to which Sweden belongs, and the barrier-free trade between EFTA and the EC. With the exception of 1987 which witnessed a surge in all four markets under consideration, Canada was the case (followed by the EC) for which the developing countries' share registered a major increase, from 35 percent in 1981 to 50 percent in 1987.

The trade coverage ratio of restrictions (*REST/TOT*) was generally stable at around 55 percent except in the EC where this was in the proximity of 40 percent. For the EC, the share of imports from developing countries under binding constraints (*BIND/TOT*) was also low, around 20 percent, compared to the other three markets, which on average was twice as much and registered significant increases during the 1981–87 period.

The share of restricted shipments which came under binding quotas (*BIND/REST*) was the highest in the United States and Canada, on the average 74 and 76 percent, respectively. There was a secular and substantial increase of this ratio in all markets. Finally, the average quota utilization rates rose in a parallel fashion, reaching values above 80 percent in all four markets.

Reviewing the four markets individually using the proxies for the coverage, and indirectly for the restrictiveness, of the MFA, we conclude that there was no noteworthy sign of relaxation of the regime. On the contrary, almost all proxies registered significant increases during the 1981–87 period, indicating a tightening of the MFA in the four markets.

It should be noted, however, that besides indicating the predominant trend over time, the data presented here do not provide a solid basis for comparisons across markets. First, there are some definitional and statistical inconsistencies, some of which are spelled out in Appendix A on data. Second, the administration of the MFA regimes can vary consider-

ably across markets. In particular the comparison between the EC and the United States suffers from the fact that, on top of the quotas negotiated by the Community, individual EC members can resort to the safeguard clause contained in the EC treaty to curtail imports.¹³ Furthermore, there are safeguards clauses in the EC's preferential trade agreements which allow surveillance and protective measures. The EC also has concluded informal arrangements with some Mediterranean countries without explicitly referring to the trade agreements' safeguards provisions.¹⁴ Finally there were major differences in the activity levels of Western Europe and North America and substantial changes in the U.S. dollar rate during the period under study. At any given time, differences in the demand conditions and the relative attractiveness of the two major markets can overshadow the differences attributable to the MFA restrictions.

Clothing versus Textiles

Do the patterns observed for the broadly defined textile products hold when clothing items are considered alone? The comparative advantage of developing countries is more pronounced in clothing than in textiles and man-made fibers. A major difference seems to be the greater possibilities to apply capital-intensive technologies to the latter products. As a matter of fact, textile production in the industrial countries, especially in the EC, made a revival during the 1980s (GATT 1987). Given these considerations, differences might be expected in the restrictiveness of the MFA vis-à-vis clothing versus textiles.

The yardsticks applied to the broad group of textile products were calculated for clothing items.¹⁵ From the results reported in Table 4-2, compared to those in Table 4-1, no major differences were observed in the patterns across the markets or over time. The main difference was the level of import market share of developing countries and the trade coverage ratio of quotas. Both this share and the coverage ratio were almost uniformly 10 percentage points higher for clothing compared to the broad group of textile products in both periods. On the other hand, the ratio of imports under binding quotas as a percentage of imports subject to restrictions, and the level of average quota utilization rates for clothing, closely resembled those for all textile products. From these results, it can be concluded that restrictions on clothing were less selective or more general compared to textiles. Nevertheless, the general trend of increasing restrictiveness held for both.

Table 4-2 Share of Developing Countries in Clothing Imports of the EC, United States, Canada and Sweden and Indicators of the Coverage and Restrictiveness of the MFA, 1981 and 1987 (Percent)

| | I Import share of developing countries ^a | II Restricted imports from developing countries (trade coverage ratio or REST/ TOT) ^b | III Imports from developing countries subject to binding restrictions (BIND/ TOT) ^b | IV Imports from developing countries subject to binding restrictions (BIND/ REST) ^c | V Average quota utilization rates ^d |
|-----------------------------|---|--|---|---|--|
| EC ^e | | | | | |
| 1981 | 71.7 | 54.4 | 29.8 | 54.8 | 68.7 |
| 1987 | 83.7 | 46.0 | 28.3 | 61.6 | 87.7 |
| U.S. | | | | | |
| 1981 | 88.9 | 68.3 | 51.1 | 4.8 | 72.4 |
| 1987 | 87.3 | 76.5 | 58.8 | 76.9 | 84.4 |
| Canada | | | | | |
| 1981 | 72.1 | 56.8 | 22.6 | 39.7 | 70.2 |
| 1987 | 74.5 | 74.1 | 57.4 | 77.4 | 89.5 |
| Sweden | | | | | |
| 1981 | 30.9 | 68.5 | 32.7 | 47.7 | 85.0 |
| 1987 | 32.8 | 57.3 | 49.4 | 86.2 | 95.1 |
| EC, U.S., Canada and Sweden | | | | | |
| 1981 | 76.4 | 61.5 | 39.9 | 64.8 | 71.2 ^f |
| 1987 | 82.2 | 63.7 | 46.2 | 72.6 | 85.8 ^f |

Note: Clothing is defined as SITC 84. For all other details, see notes to Table 4-1.

- a. As percentage of total imports of clothing products.
- b. As percentage of total imports from developing countries.
- c. As percentage of restricted imports from developing countries.
- d. A maximum of 115 percent quota utilization was allowed in taking averages across MFA categories.
- e. 1981-1986 EC(10), 1987 EC(12). Trade shares exclude intra-EC trade.
- f. Approximate weighted average across markets using restricted trade values as weights.

Source: World Bank computer files on MFA and UNSO COMTRADE Data Base (see Appendix A).

The MFA Syndrome for Developing Country Exporters

Individual developing countries were affected by and responded to the quotas on their exports of textile products in different ways. The proportion of the countries' exports subject to quotas and their rate of quota

utilization are two dimensions which provide a basis for the characterization of these supply and market responses.

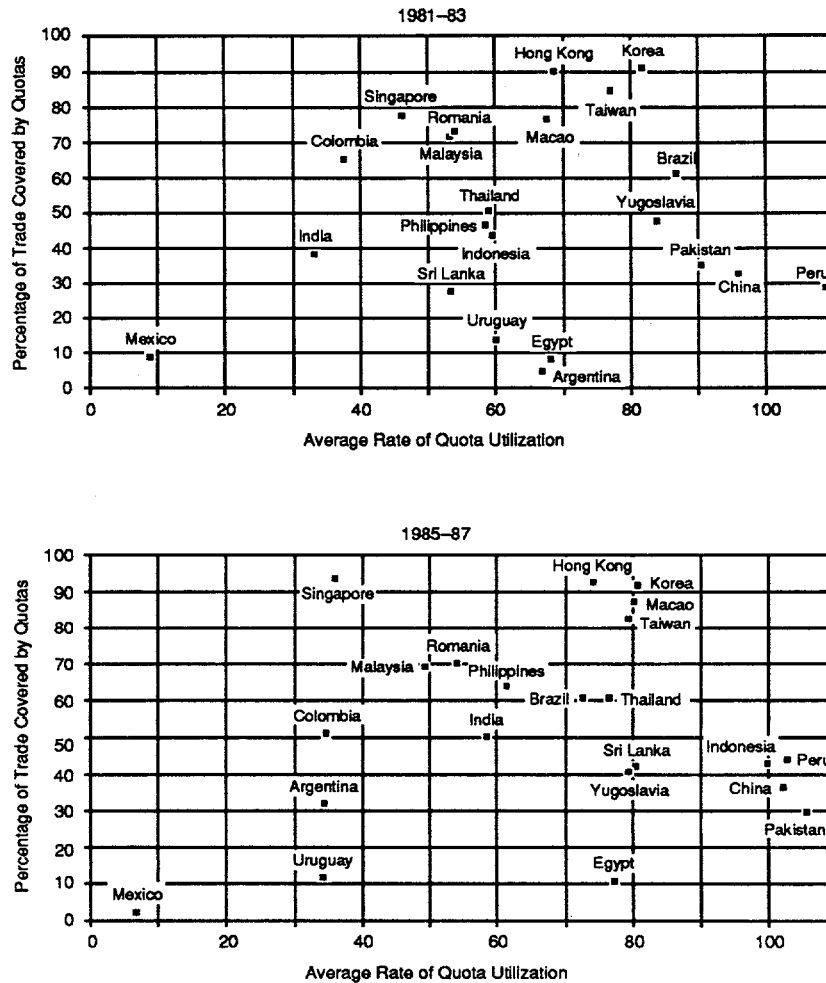
To demonstrate the point, at one extreme were suppliers with only a few products facing quotas, who were unable to come close to filling them. At the other extreme were diversified exporters with quotas on almost all products who used them to the fullest extent. These extremities characterize supply- versus market-constrained situations. Consequently a transition from the former to the latter state increases the importance of conditions of access to the markets. Furthermore, as this transition involves imposition of new quotas and their utilization to the limit, the regime can be branded as becoming more restrictive. We shall observe that this caricature resembles the predominant evolution for the developing suppliers in the EC and U.S. markets.

Figures 4-1 and 4-2 give the two-dimensional characterization of the individual developing country suppliers in the EC and U.S. markets, respectively. The vertical axis in the scatter diagrams indicates the proportion of the value of imports of textile products subject to quotas, while the average quota utilization rate is measured along the horizontal axis. In the upper diagrams of both figures, exporters are plotted by their 1981-83 period averages, and the lower diagrams depict the 1985-87 situation.¹⁶ As textile products in this case are defined narrowly by the EC's and United States' own MFA categories, respectively, the standing of a supplier in the two markets is not directly comparable.¹⁷

The overall impression from the diagrams is of a concentration of exporters in the second period into the northeast quarter. More specifically, it can be observed that among the 22 exporters in the EC market depicted for both periods, 11 of them (China, Egypt, Hong Kong, India, Indonesia, Macao, Pakistan, Peru, Philippines, Sri Lanka and Thailand) made a positive move on both axes toward full trade coverage and quota utilization. Another two (the Republic of Korea and Taiwan) maintained their already "high" positions. In the U.S. market there were 22 developing country suppliers under restrictions in both periods, and again 11 of them (Brazil, China, India, Indonesia, Macao, Mexico, Romania, Singapore, Sri Lanka, Thailand and Yugoslavia) moved in the northeast direction. Four more exporters (Hong Kong, the Republic of Korea, Pakistan and Taiwan) were stable in the proximity of the northeastern corner of the diagram. Among these suppliers, ten (China, Hong Kong, India, Indonesia, the Republic of Korea, Macao, Pakistan, Sri Lanka, Taiwan and Thailand) had a similar evolution in both markets and four of them (Hong Kong, the Republic of Korea, Taiwan and, to a lesser extent, Thailand) were more or less "tied up" in terms of product coverage and quota limits.

In the U.S. market, a dozen emerging exporters were placed under restrictions in the 1985-87 period. Half of these, especially Bangladesh

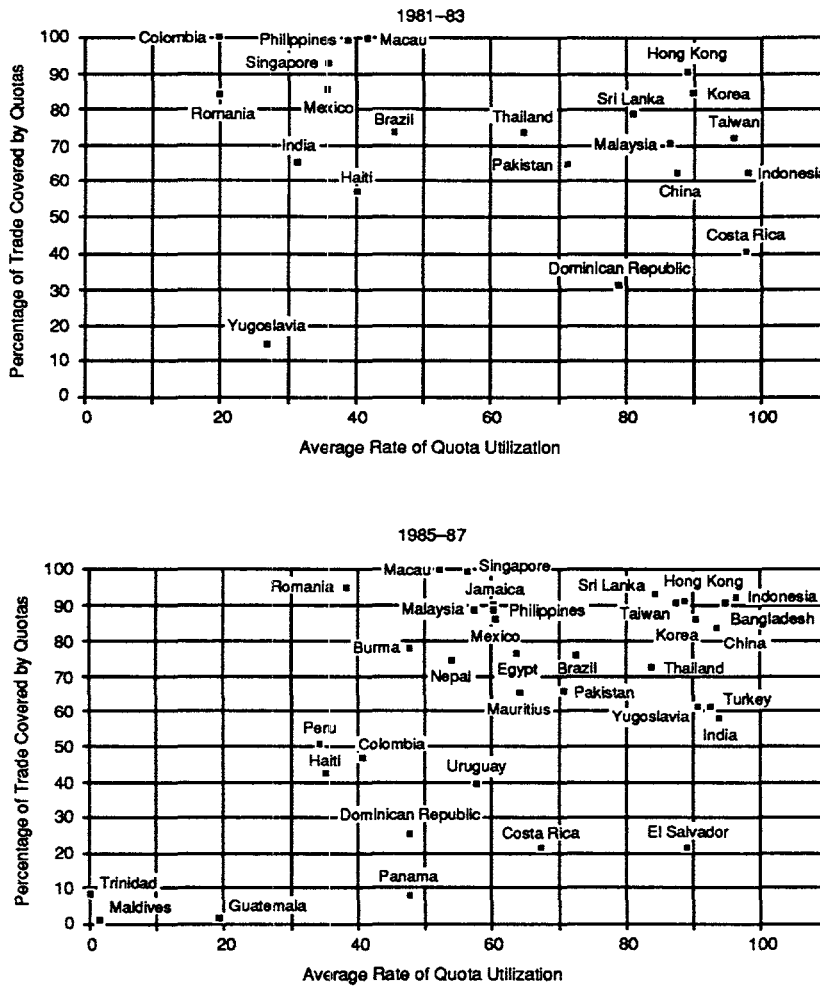
Figure 4-1 Share of Imports of Textile Products Subject to Quotas and Average Quota Utilization Rates for Developing Suppliers in the EC Market, 1981-83 and 1985-87



Note: Trade coverage ratios are based on the EC's imports in its own MFA categories (as opposed to the broadest definition of textile products based on SITC).

Source: World Bank computer files on MFA (see Appendix A).

Figure 4-2 Share of Imports of Textile Products Subject to Quotas and Average Quota Utilization Rates for Developing Suppliers in the U.S. Market, 1981-83 and 1985-87



Note: Trade coverage ratios are based on U.S. imports in its own MFA categories (as opposed to the broadest definition of textile products based on SITC).

Source: World Bank computer files on MFA (see Appendix A).

and Turkey, started their ordeal with a high coverage and tight quotas on their limited products.

Seven exporters in the EC market (Brazil, Colombia, Malaysia, Mexico, Romania, Uruguay and Yugoslavia) and three in the U.S. market (Costa Rica, Dominican Republic and Haiti) drifted toward lower trade coverage or quota utilization, or both. Furthermore, for two suppliers in the EC (Argentina and Singapore) and three in the United States market (Colombia, Malaysia and the Philippines), product coverage and quota utilization rates moved in the opposite direction.

Differences among country experiences and inconsistencies in performance across the two markets underline the importance of supply conditions, including the administrative capacity for effective utilization of quotas (Hamilton 1986b). Low quota utilization rates can be traced to the anti-export bias in the case of some countries, and political disruptions in some others. Another explanation is increasing labor costs and the consequent shift in comparative advantage.¹⁸

The most efficient suppliers always make the best use of the prevailing market conditions. The irony of discriminatory protectionism, in this case the MFA restrictions, is that good performance is punished. When a supplier shows a potential in a market, its most promising products are covered by quotas. Emerging suppliers usually start with a low coverage ratio and utilization rate, although there are some exceptions.¹⁹ If they perform as expected, they soon hit the quota ceilings in those limited goods. They can move into new products, although these will also become subject to restrictions. Growth of quota ceilings does not catch up with the expansion of successful suppliers' shipments, and product diversification is more than compensated by imposition of restrictions on the emerging products.

The moral of the story is that it is not only the exports of the established suppliers which come under binding constraints. The newcomers, which might to some extent benefit from restrictions on the major suppliers, soon find themselves pressed; the more successful they are, the faster and tighter they are embraced by the MFA.

Price and Volume Effects of Binding Quotas

Volume restraints on developing countries' exports of textile products, among others, raise domestic prices in importing markets (Cline 1987, Hamilton 1984, Hufbauer and others 1986, Jenkins 1980, Spinanger and Zietz 1986 and Tarr and Morkre 1984); yield quota rents to established suppliers (Hamilton 1988, Pelzman 1988 and Tarr and Morkre 1984); and induce "upgrading" of the products exported (Cline 1987 and Wolf 1987). It is the quantification of such effects which gives direct evidence

as to the extent and the eventual intensification of the distortions of the MFA. In this section, we simply compare the developments during the period 1981–87 in the volume and unit value of imports subject to binding quotas with those shipments under nonbinding quotas. The comparison serves two purposes. First, it is a rough indicator of the changes in the effectiveness of the MFA. Second, it constitutes a test of our working definition of a binding quota, that is, those identified by a utilization rate of 90 percent or above.

For the comparison, the products and suppliers are limited to those which were subject to bilateral quotas in respective markets *both* in 1981 and 1987.²⁰ Thus the eligible products in the EC accounted for 83 percent of all imports of textile products from developing countries subject to quotas in 1987. The respective figures for the United States, Canada and Sweden were 67, 61 and 79 percent. Shipments for which quota utilization rates were 90 percent or above in the earlier periods, that is, 1981, 1982 or 1983, are defined as being subject to binding quotas.

Volume Restraint

In all four markets, the 1981–87 annual average volume growth of shipments subject to binding quotas was lower than that for imports falling under nonbinding quotas (see Table 4–3). For the EC, the growth rates of the two categories were respectively 5.4 and 6.7 percent and for the United States 2.4 and 13.6 percent. In Canada imports fulfilling the requirement above and not subject to binding quotas constituted only 3 percent of shipments under restrictions. This category had a growth rate of 24.4 percent as opposed to a 2.8 percent annual growth in the bound items. In Sweden the distinction in growth rates was marginal.

In the two major markets,²¹ based on volume growth in individual shipments (quota and supplier), we applied a *t*-test to determine whether the bound categories' sample means differed significantly from those of unbound groups.²² We found that in the case of the United States there was not even a 0.1 percent probability that the difference was coincidental, whereas for the EC there was a 25 percent chance.

Price Jack-up

Changes in unit values reflect two phenomena: (i) the price markup or the quota rent and (ii) product "upgrading" or quality improvements.²³ We did not attempt to distinguish between these two.²⁴

It was observed that in all four markets, the increase in the unit values was considerably greater in the case of shipments under binding quotas compared to those falling under nonbinding quotas (see Table 4–3). For the EC, the average annual growth rate of the unit value of the bound

category was 1.9 percent, more than twice the 0.8 percent for the unbound. The difference was even greater for the United States, respectively, 9.1 and 3.4 percent; and for Canada, 11.6 and 2.7 percent. In Sweden the growth rate for the bound items was double that for the unbound: 8.3 and 4.1 percent.

When a *t*-test was applied to differences in the unit value growth of individual shipments falling under the two categories, the results were identical with those for volume growth: extremely robust for the United States and rather weak for the EC.

We interpret the findings in this section as further evidence of the volume-restraining and value-increasing effects of the MFA. More important, the evidence, especially in the case of the United States, verifies the relevance of identifying bound quotas by the high levels of quota utilization rates—the assumption behind the main indicators used in the previous section.

Changes in Import Market Shares: A Consequence of Trade Diversion?

When shipments of some exporters are bound by quotas, domestic producers and foreign suppliers which are not effectively constrained,

Table 4-3 Volume Growth and Unit Value Changes in Imports of Textile Products from Developing Suppliers under Binding and Nonbinding Quotas in the EC, United States, Canada and Sweden (1981-87 average annual change, percent)

| | EC | U.S. | Canada | Sweden |
|----------------------------|-----|------|--------|--------|
| I. Change in volume | | | | |
| A. Under binding quotas | 5.4 | 2.4 | 2.8 | 3.1 |
| B. Under nonbinding quotas | 6.7 | 13.6 | 24.4 | 3.2 |
| II. Change in unit value | | | | |
| A. Under binding quotas | 1.9 | 9.1 | 11.6 | 8.3 |
| B. Under nonbinding quotas | 0.8 | 3.4 | 2.7 | 4.1 |

Memo item: Shipments above (A and B) as a percentage of (the value of) all imports of textile products from developing suppliers subject to quotas in 1987, (percent):

| | | | | |
|---------|------|------|------|------|
| A. | 51.0 | 56.5 | 58.1 | 65.8 |
| B. | 31.5 | 10.8 | 3.0 | 13.2 |
| A. + B. | 82.5 | 67.3 | 61.1 | 79.0 |

Note: The tabulation covers only products/suppliers which were subject to bilateral quotas in respective markets both in 1981 and in 1987. Shipments for which quota utilization rates were 90 percent or above in 1981, 1982 or 1983 are defined as being subject to binding quotas.

Source: World Bank computer files on MFA (see Appendix A).

that is, those which either are not subject to quotas or have not reached quota ceilings in the products concerned, would step in and partially offset this effect. As less established developing country suppliers would more likely fall into this unconstrained category, they are among the potential beneficiaries of the resulting trade diversion. Consistent with this perception, some less competitive developing country exporters regarded the extension of the MFA as providing a "guaranteed market share" (Cable 1987). However, trade diversion due to the MFA also occurs in favor of the exports from developed countries since the MFA restrictions do not apply to them (Keesing and Wolf 1980 and Hamilton 1988).

The starting point of our analysis in this section is the observation, for example, by Wolf (1987), that from 1981 to 1985 U.S. imports of textiles and clothing from Hong Kong, the Republic of Korea and Taiwan grew at an annual rate of less than 10 percent, while those from other developing countries had a growth rate more than twice that (22 percent), and the growth rate of those items from Europe was over three times greater (33 percent). We go a step further and compare the 1981–87 changes in market shares of various groups of developing and developed countries in precisely those products for which the established developing country suppliers faced binding quotas.

In each market, a set of the MFA categories was identified in which Hong Kong, Korea and Taiwan had quota utilization rates of 90 percent or above during most of the 1981–87 period (for example, at least four years in each case). Imports in these product categories from developing countries accounted for 56 percent of the EC's 1987 imports of textile products from developing country suppliers. This coverage ratio was the same in the case of the United States, 77 percent for Canada and 53 percent for Sweden.

It was observed that, in these products, the share of the three established developing country suppliers in the EC's imports declined from 13 percent in 1981 to 10.5 percent in 1987²⁵ (see Table 4–4) while this share in the remaining textile products did not change.²⁶ The other developing country exporters that had bilateral quotas with the EC made a market gain roughly corresponding to this percentage. Among them, it was only Brazil, Colombia, Singapore and Uruguay which experienced a market loss of some significance. This was not attributable to the MFA as they rarely reached quota ceilings. Those developing countries which were not subject to the MFA restrictions in the EC nearly doubled their market share from 4.7 to 8.3 percent. These were predominantly Mediterranean associates of the Community. The African, Caribbean and Pacific (ACP) group of countries, which enjoy duty-free status in the EC accorded by the Lomé Convention, had half a percent market share in 1981, which became 0.8 percent in 1987.

Table 4-4 Changes in Import Market Share of Suppliers in Textile Products Which Were under Binding Restrictions for Hong Kong, the Republic of Korea and Taiwan in the EC Market, 1981-87

| Supplier | Import market share ^a | | |
|---------------------------------------|----------------------------------|--------------------------------|------|
| | I 1981 | II 1987 | II/I |
| The Three | 13.07 | 10.48 | 0.80 |
| Hong Kong | 7.29 | 5.83 | 0.80 |
| Korea, Rep. of | 3.71 | 2.90 | 0.78 |
| Taiwan | 2.07 | 1.75 | 0.85 |
| Other restricted developing countries | 12.66 | 15.40 | 1.22 |
| Argentina | 0.03 | 0.05 | 1.91 |
| Bangladesh | 0.12 | 0.14 | 1.16 |
| Brazil | 0.81 | 0.55 | 0.69 |
| China | 1.53 | 2.58 | 1.68 |
| Colombia | 0.11 | 0.06 | 0.56 |
| Egypt | 0.38 | 0.55 | 1.42 |
| India | 2.10 | 1.97 | 0.94 |
| Indonesia | 0.13 | 0.60 | 4.74 |
| Macau | 0.86 | 0.86 | 1.00 |
| Malaysia | 0.39 | 0.39 | 0.99 |
| Mexico | 0.04 | 0.08 | 1.83 |
| Pakistan | 0.56 | 0.87 | 1.56 |
| Peru | 0.12 | 0.12 | 0.97 |
| Philippines | 0.55 | 0.53 | 0.95 |
| Romania | 1.23 | 1.08 | 0.88 |
| Singapore | 0.68 | 0.44 | 0.65 |
| Sri Lanka | 0.17 | 0.31 | 1.87 |
| Thailand | 0.86 | 1.32 | 1.52 |
| Uruguay | 0.02 | 0.01 | 0.49 |
| Yugoslavia | 1.95 | 2.89 | 1.48 |
| All restricted developing | 25.73 | 25.88 | 1.01 |
| Other developing | 4.74 | 8.33 | 1.76 |
| ACP | 0.52 | 0.81 | 1.56 |
| All developing | 31.00 | 35.02 | 1.13 |
| Eastern Europe ^b | 2.65 | 2.23 | 0.84 |
| Developed countries | 64.67 | 61.51 | 0.95 |
| Intra-EC | 52.33 | (61.86) ^c 49.60 | 0.95 |
| Total | 100.00 | (55.08) ^c 100.00 | 1.00 |

Notes: The MFA product groups in which Hong Kong, Korea or Taiwan had quota utilization rates 90 percent or above more than half of the period (at least four years) 1981-87.

a. Calculated using value in current dollars. Including intra-EC trade; EC(10) for both 1981 and 1987.

b. Bulgaria, Czechoslovakia, Hungary and Poland.

c. EC(12).

Source: World Bank computer files on the MFA and UNSO COMTRADE Data Base.

Table 4-5 Changes in Import Market Share of Suppliers in Textile Products Which Were under Binding Restrictions for Hong Kong, the Republic of Korea and Taiwan in the U.S. Market, 1981-87

| Supplier | Import market share ^a | | |
|-----------------------------|----------------------------------|------------|--------|
| | I 1981 | II 1987 | II/I |
| The Three | 55.11 | 43.45 | 0.79 |
| Hong Kong | 22.78 | 17.28 | 0.76 |
| Korea, Rep. of | 15.14 | 11.21 | 0.74 |
| Taiwan | 17.19 | 14.96 | 0.87 |
| Other restricted developing | 28.67 | 41.92 | 1.46 |
| Bangladesh | 0.02 | 1.66 | 102.22 |
| Brazil | 0.37 | 0.86 | 2.34 |
| Burma | 0.00 | 0.02 | - |
| China | 6.43 | 7.91 | 1.23 |
| Colombia | 0.57 | 0.44 | 0.77 |
| Costa Rica | 0.53 | 1.06 | 2.01 |
| Dominican Republic | 1.34 | 2.08 | 1.55 |
| Egypt | 0.16 | 0.29 | 1.87 |
| El Salvador | 0.14 | 0.13 | 0.93 |
| Guatemala | 0.01 | 0.22 | 37.99 |
| Haiti | 0.80 | 0.71 | 0.88 |
| India | 2.55 | 2.69 | 1.06 |
| Indonesia | 0.54 | 2.43 | 4.51 |
| Jamaica | 0.23 | 1.03 | 4.41 |
| Macau | 1.41 | 1.72 | 1.22 |
| Malaysia | 0.71 | 1.86 | 2.63 |
| Maldives | 0.02 | 0.07 | 3.84 |
| Mauritius | 0.14 | 0.68 | 4.78 |
| Mexico | 2.56 | 2.18 | 0.85 |
| Nepal | 0.00 | 0.16 | - |
| Pakistan | 0.78 | 0.99 | 1.27 |
| Panama | 0.03 | 0.26 | 8.66 |
| Peru | 0.45 | 0.22 | 0.49 |
| Philippines | 3.11 | 3.04 | 0.98 |
| Romania | 0.68 | 0.59 | 0.86 |
| Singapore | 2.26 | 2.84 | 1.26 |
| Sri Lanka | 1.20 | 1.97 | 1.63 |
| Thailand | 1.30 | 1.70 | 1.30 |
| Trinidad & Tobago | 0.02 | 0.00 | 0.31 |
| Turkey | 0.01 | 1.27 | 142.51 |
| Uruguay | 0.23 | 0.36 | 1.59 |
| Yugoslavia | 0.10 | 0.46 | 4.81 |
| All restricted developing | 83.78 | 85.37 | 1.02 |
| Other developing | 0.94 | 1.29 | 1.38 |
| All developing | 84.72 | 86.66 | 1.02 |
| Caribbean Basin Initiative | 3.59 | 6.01 | 1.67 |
| Eastern Europe ^b | 0.67 | 0.57 | 0.85 |
| Developed countries | 14.54 | 12.77 | 0.88 |
| Total | 100.00 | 100.00 | 1.00 |

Table 4-5 (continued)

Notes: The MFA product groups in which Hong Kong, Korea or Taiwan had quota utilization rates 90 percent or above more than half of the period (at least four years) 1981-87.

a. Calculated using value in current dollars. Including intra-EC trade; EC(10) for both 1981 and 1987.

b. Bulgaria, Czechoslovakia, Hungary and Poland.

Source: World Bank computer files on MFA and UNSO COMTRADE Data Base.

Developed country exporters, including intra-EC(10) trade, had around 65 percent of the market in 1981. In 1987 this was 3 percentage points lower. Intra-EC trade, though, was up from 52 to 55 percent when EC(12) was considered.

Developments in the U.S. market were similar to those in the EC. The share of the three established developing economy suppliers in products subject to binding quotas registered a greater decline, however, from 55 percent in 1981 to 43 percent in 1987 (see Table 4-5), while in the remaining textile products, this share was constant.²⁷ Other developing countries which had bilateral quotas with the United States have increased their share of the market by a roughly equal amount, 13 percentage points. For these countries, improvement in market share was also true on an individual basis. The only ones which had a noteworthy market share loss were Colombia, Peru and Trinidad and Tobago, none of which was severely constrained by quotas.

Developing countries that did not have any bilateral quotas with the United States accounted for only 1 percent of imports in products under question and increased this share to 1.3 percent by 1987. Countries covered by the U.S. Caribbean Basin Initiative (CBI), some of which were nominally subject to restrictions, nearly doubled their share from 3.6 to 6 percent of the market.²⁸

Developed country exporters did not make any apparent gains from the restrictions on the major developing country suppliers in the U.S. market. Their share declined from 15 to 13 percent during the 1981-87 period.

In Canada the decline of the market share of the established developing country suppliers in products facing binding quotas was from 51 to 46 percent. The other developing country suppliers, predominantly subject to quotas, increased their market share by 11 percentage points

while the share of the developed countries declined from 28 to 23 percent.

In Sweden where the share of developing countries in textile products is relatively low, the situation was slightly different. While the established developing country suppliers (only Hong Kong and Korea in this case) in product groups for which they faced binding quotas declined from 17 to 14 percent, other developing countries that have bilateral arrangements increased their share by 2 percentage points. Those developing suppliers which did not have quota restrictions doubled their marginal share from 1 to 2 percent. The developed countries which had a prominent share of the market, 71 percent, maintained their position throughout 1987.

We can conclude that in all four markets studied, binding constraints faced by the established developing country suppliers have apparently been associated with loss of market share. Except in the United States, however, the scope of this seemed rather small.

Among the developing countries which did not have bilateral quotas with the respective markets, only the Mediterranean countries in the EC and the countries covered by the Caribbean initiative in the United States seemed to have any noteworthy market share gain which might be associated with restrictions on major suppliers.

We did not find any apparent gain for the developed country exporters. The case which came closest to a gain was Sweden, where developed country suppliers maintained their market shares. However, this and the smallness of their market share losses in other markets might be related to the restrictions on major developing country suppliers.

The observed changes in market shares are not necessarily or fully attributable to the MFA. Such changes could be due to shifts in comparative advantage. In the next section, applying a more rigorous model framework to selected products, we estimate the likely magnitude of trade diversion due to the MFA.

A Trickle to Unconstrained Developing Country Suppliers Due to the MFA: An Illustrative Simulation

What is the likely magnitude of trade diverted to unconstrained developing countries (that is, those which either are not subject to quotas or have not reached quota ceilings) from established developing country suppliers constrained by binding quotas under the MFA?

We address this question in an illustrative manner by applying a relatively simple model that nevertheless incorporates demand and alternative supply conditions. To limit the data requirements and avoid an extremely complex model structure we confined our analysis to the

U.S. imports of a representative group of apparel products which are supplied predominantly by developing countries. Although this is merely a case application, it should be noted that the United States constitutes the largest market for developing countries and the products under consideration account for roughly half of all U.S. clothing imports.

The Model

The model we employ²⁹ is an extended (and simplified) version of the model developed by Tarr (1987). This is a partial equilibrium analysis; that is, the clothing sector is examined separately from the rest of the economy. Following the Armington (1969) tradition, goods are assumed to be differentiated according to the place of production. In the model, there is only one group of consumers—the U.S. consumers.³⁰ The consumers are buying from three groups of suppliers: domestic producers (group 1), constrained foreign (developing country) suppliers (group 2), and unconstrained foreign (developing country) suppliers (group 3). Thus, there are three demand functions for each good:³¹

$$(1) \quad QD_i = \alpha_i + \beta_i PD_1 + \gamma_i PD_2 + \delta_i PD_3$$

where QD_i and PD_i are, respectively, the quantity of demand for and (consumer) price of product i ($i = 1, 2, 3$). As shown in equation (1), the amount of demand for product i is influenced by the prices of other products as well as by its own price, since there is (imperfect) substitutability among products.

Supply is characterized by the following three supply functions:

$$(2) \quad QS_i = a_i + b_i PS_i$$

where QS_i and PS_i are the amount of supply and (producer) price of product i ($i = 1, 2, 3$).

Under tariffs and the MFA quotas, consumer prices of foreign products differ from producer prices. For simplicity when we ignore transportation costs etc., the following conditions hold in equilibrium:

$$(3) \quad PD_1 = PS_1$$

$$(4) \quad PD_2 = (1 + t)(1 + m) PS_2$$

$$(5) \quad PD_3 = (1 + t) PS_3$$

where, t and m are, respectively, the tariff rate and the quota premium due to the MFA.³² Furthermore, in equilibrium, the quantity demanded must be equal to the quantity supplied.

In the absence of quotas, the quota premium on products from the constrained suppliers disappears. In order to obtain the magnitude of the effects of the MFA, we simply compare the values of endogenous variables under quotas with their values in the absence of quotas. More specifically, we can calculate the magnitudes of excess domestic production, suppressed trade and trade diverted due to the MFA.

Estimation Results

We applied the model to U.S. imports of six broad categories of the apparel products. These six items amount to about 50 percent of total U.S. clothing imports. As shown in Table 4-6, developing countries accounted for over 90 percent of total imports in these products. For simplicity, we ignored the imports from developed countries. Given that imports from developed countries were less than 10 percent *despite* the MFA, this simplifying assumption is not unrealistic.

For some of the parameter values of the model, we followed Tarr and Morkre's (1984) approach. Based on Armington's (1969) formula, own-price elasticities and cross-price elasticities of differentiated products were calculated from the price elasticity of aggregate clothing and elasticity of substitution for each product. Furthermore, for the quota premium we used Pelzman's (1988) estimates of the tariff equivalents of the MFA quotas. As given in the Appendix, Pelzman's estimates are in

Table 4-6 U.S. Imports of Selected Apparel Products, 1986

| Item | Value of imports, US\$ million | | | Share of developing countries (percent) |
|---|--------------------------------|---------------------------|---------------|---|
| | From all sources | From developing countries | | |
| | | Constrained | Unconstrained | |
| Knit shirts and blouses | 2,072.5 | 1,718.5 | 245.7 | 94.8 |
| Men and boys' shirts, not knit | 1,239.7 | 959.3 | 226.3 | 95.6 |
| Women and girls' shirts and blouses, not knit | 1,343.0 | 1,068.6 | 174.0 | 94.4 |
| Sweaters, man-made fiber | 864.3 | 415.6 | 398.4 | 92.5 |
| Trousers, slacks and shorts | 2,432.8 | 1,708.4 | 464.8 | 89.3 |
| Underwear | 167.6 | 80.3 | 68.2 | 88.6 |
| Total | 8,119.9 | 5,950.7 | 1,577.4 | 92.7 |

Note: The six product groups listed above are, respectively, the following US MFA categories: (i) 338, 339, 638, 639, (ii) 340, 640, (iii) 341, 641, (iv) 645, 646, (v) 347, 348, 647, 648, and (vi) 352, 652.

Source: The World Bank computer files on the MFA.

Table 4-7 Estimate of the Impact of the MFA on Selected Apparel Products in the U.S. Market, 1986

| | Increased value of shipments (US\$ million) | | | As a percentage of 1986 shipments | | |
|---|---|------------------------------|---------------|-----------------------------------|------------------------------|---------------|
| | Domestic suppliers | Developing country suppliers | | Domestic suppliers | Developing country suppliers | |
| | | Constrained | Unconstrained | | Constrained | Unconstrained |
| Knit shirts and blouses | 420.5 | -16.6 | 40.5 | 18.0 | -1.0 | 19.7 |
| Men and boys' shirts, not knit | 200.4 | -7.4 | 37.9 | 18.4 | -0.8 | 20.1 |
| Women and girls' shirts and blouses, not knit | 284.1 | -41.8 | 22.9 | 13.9 | -3.8 | 15.2 |
| Sweaters, man-made fiber | 78.3 | -20.2 | 57.6 | 15.5 | -4.6 | 16.9 |
| Trousers, slacks and shorts | 592.3 | -165.9 | 34.8 | 7.4 | -8.8 | 8.1 |
| Underwear | 34.2 | -12.6 | 1.2 | 1.6 | -13.5 | 1.7 |
| Total | 1,609.8 | -264.4 | 194.9 | 10.0 | -4.3 | 14.1 |
| <i>Memo item:</i> Changes due to the quantity effect alone | 947.3 | -1,116.9 | 127.8 | 5.9 | -18.8 | 9.2 |

Note: Changes due to the quantity effect alone give the changes in the value of shipments of the six items under the MFA quotas valued at the nonquota price.

the range of 28 to 37 percent. These are comparable with Hamilton's (1988) estimate for U.S. quotas on Hong Kong's clothing exports. For supply elasticities, we adopted, respectively, 1.5 and 2.0 for domestic producers and developing countries. Given the arbitrary nature of this selection, however, we also undertook a sensitivity analysis by assigning infinite supply elasticity for all producers. The results of the latter and the values of the other key parameters used in the estimations are given in Appendix B.

Table 4-7 provides a summary of our simulation results. The magnitude of the alleged "spillover" appears to be fairly low. Due to the decline in shipments from constrained developing country suppliers, the unconstrained suppliers could increase their shipments of these six clothing items by less than \$200 million. This was only 14 percent of the revenue

from current shipments of the six items from the unconstrained developing exporters.

The simulation results suggest that the main beneficiaries of the MFA are the domestic producers in the importing country. This stems mainly from their much larger initial market share.³³ In the case of the six product groups we studied, the value of shipments from unconstrained developing countries seemed to have increased by roughly US\$ 200 million due to the MFA, while domestic producers expanded their output by \$1.6 billion (or 10 percent over their 1986 level). It should also be noted that this gain was on top of domestic production made viable by very high tariffs (shown in Appendix B).

The simulations also indicate that the volume of imports from constrained developing country suppliers might have been curtailed by 19 percent (or over \$1 billion at nonquota prices) due to the MFA quotas.³⁴ However, as this quantity decline would be largely offset by higher prices due to quotas, their revenue losses would be considerably lower; roughly \$300 million (4 percent).

To test the sensitivity of our results with respect to the supply conditions, we estimated the model assuming infinite supply elasticities for all (domestic and developing country) suppliers. The results of this exercise, given in Appendix B, might be interpreted as a longer-term adjustment accounting for developments such as investments. Accordingly, the unconstrained developing country suppliers made approximately \$300 million of additional sales (25 percent) and the constrained ones have lost nearly \$900 million (13 percent). Domestic U.S. production increased by \$2.8 billion (19 percent) due to the MFA. The results of the high scenario do not change the essence of the argument that the gains of the less restricted developing countries are relatively small, and again, in absolute magnitudes, the main beneficiaries of the MFA are overwhelmingly the domestic producers in the importing country. The high scenario, on the other hand, underlines that the established developing suppliers may be losing in a big way.

Gains for Marginal Suppliers

In our estimation, we treated all unconstrained developing country suppliers as a single group. While the magnitude of the trade gains for this group as a whole might be small, this does not preclude the fact that some marginal suppliers might have enjoyed a major spillover from the MFA. For example, during the period 1981–86, the value of shipments of these six product groups from the CBI countries³⁵ to the United States increased by an annual average of 32 percent—twice the rate of the U.S. imports of these products from all sources. Although they are marginal suppliers to the United States, these 22 countries, by quadrupling the

value of their shipments, were able to capture almost twice their previous share of the U.S. import market for the six items—from less than 3 percent in 1981 to 5.6 percent in 1986.

Concluding Remarks

There are two issues pursued in this paper that convey two messages. The issues are the urgency of action in the direction of dismantling the MFA, and the exaggeration of the scope of trade gains purportedly enjoyed by some developing countries due to the MFA. The messages are: (i) the MFA has not been eased out, on the contrary it has become tougher for most developing exporters especially for the successful newcomers, and (ii) trade gains for less established exporters resulting from the MFA may be exaggerated.

An Increasingly Restrictive and Effective MFA

At the stage of their conception, the only acceptable element of the MFA and the arrangements preceding it was probably the purportedly *temporary* nature of these measures to give breathing space in the structural adjustment process. However, not only has the MFA become permanent, its restrictiveness and effectiveness has generally increased in terms of (i) the share of trade subject to restrictions, (ii) quota utilization rates, (iii) the share of shipments facing binding quotas, and (iv) developments in volume and unit value of shipments under binding quotas.

Given this development, the question is whether *now* the economies of the industrial countries are more or less prepared for an elimination of nontariff barriers in textiles and clothing, compared to, say, the early 1980s. More important, if the current trend in the restrictions under the MFA continues, would this facilitate adjustment to freer trade by the middle or late 1990s?

Sweden, taking the wise lesson from its painful experience with iron and steel and shipbuilding industries, says *no* and has decided to terminate its textile and clothing quotas when the current MFA expires. We would like to interpret the April 1989 resolution on textiles and clothing of the GATT Contracting Parties as expressing the same intent.

Exaggerated Trade Gains for the Less Established

While it was sheer capitulation to far stronger parties in world trade, the generally shared belief that there was also some gross benefit for all parties involved made the acceptance of the MFA by the developing countries less painful. For the smaller or relatively new developing

country suppliers, this was the prospect of capturing the trade diverted from the established developing country suppliers due to the binding MFA quotas. While apparent changes in market shares lend support to this presumption, what is attributable to the MFA turns out to be generally meager. A simulation undertaken to illustrate this point indicated that, in major clothing imports of the United States which were predominantly supplied by developing countries, the trade gains of nonrestricted developing country suppliers taken as a whole added up to probably less than 15 percent, in the most extreme scenario 25 percent, of their exports—while the domestic producers in the protected market were the main beneficiaries in absolute magnitudes.

Therefore, except for the marginal suppliers for whom the MFA might have been the principal reason of their emergence, the purported trade gains for the needy appear to be a weak argument. This is especially true considering the fact that any exporter soon finds itself restricted under the MFA in the event of sizable supply response.

Appendix A—Data

Coverage

The World Bank computer files on the MFA contain the following *variables*, all in the national MFA categories of the importing developed countries: (i) quota levels, in volume; (ii) actual shipments in volume and (iii) in value; and (iv) volume conversion factors, for example, metric ton equivalents, when relevant; (v) a fifth variable, unit value, is derived from the above (with exception when unit values are provided by the national authorities). Also *concordances* for each national MFA group (for each year) with national tariff nomenclature and with SITC revision 2 are stored (the latter concordances being approximations³⁶).

As *exporters*, all developing countries and territories³⁶ are recorded individually, whether or not they are subject to the MFA restrictions. Data for actual shipments into the markets concerned are stored for all suppliers, developed and developing. The *period* of coverage is 1981 to the current period with a one-year lag, that is, currently 1987. For the time being, four industrial *markets* are covered: the EC, the United States, Canada and Sweden.

Sources and Some Specifics

Data for EC imports under the MFA categories are available from the Community (microfiche SCE 2510) in terms of both quantity and value, specifying the source of the shipments. Imports subject to the restrictions

and those which fall outside are also distinguished. Initial quota levels specified in volume were extracted from the *EC Journal* and merged with the data set on shipments. Modifications in the quotas resulting from the application of flexibility provisions could not be incorporated since this information is not available in a compiled form.

For the *United States*, data on volume of quotas and actual shipment for the MFA categories are available in the "Expired Restraints of the Performance Report" of the U.S. Department of Commerce. Based on the concordances (for respective years) between the national U.S. tariff nomenclature (the TSUSA) and the the MFA groups, it was possible to ascertain the value of trade under specific restrictions using the trade values available on tape from the Bureau of the Census according to the tariff classification. All three types of restriction—namely the "designated consultation levels," "minimum consultation levels" and "specific limits"—were treated similarly as quotas. The U.S. data take into consideration modifications to the initial quotas.

The *Canadian* data originate from the Department of External Affairs, Import Controls Division I, of the Special Trade Relations Bureau. Quotas and shipments, in quantity, are available in "Restraint Utilization by Product" of this Bureau. Values are derived from the average unit values per product group and exporter, given in "Import Table by Product—Imports Unit Price." Quotas are defined to include "consultation levels" and "export authorization limits."

The *Swedish* data on constraints are compiled by the National Board of Trade in volume terms for the MFA groups. Actual import figures in value terms from the Central Bureau of Statistics were matched with the the MFA categories.

The kind collaboration of the national agencies named above and the valuable help extended by their officials are gratefully acknowledged.

Table 4-AI.1 Developing Suppliers Subject to Bilateral Quotas in Textile Products in the EC, United States, Canada, and Sweden, 1981-87

| | EC | | | | | | | United States | | | | | | |
|--------------------|------|------|------|------|------|------|------|----------------|----------------|----------------|------|----------------|----------------|----------------|
| | 1981 | 1982 | 1983 | 1984 | 1985 | 1986 | 1987 | 1981 | 1982 | 1983 | 1984 | 1985 | 1986 | 1987 |
| Argentina | ◆ | ◆ | | | | | ◆ | | | | | | | |
| Bangladesh | | | | | | | | | | | | | ◆ | ◆ |
| Barbados | | | | | | | | | | | ◆ | | | |
| Brazil | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ ^d | ◆ | ◆ | ◆ | ◆ |
| Burma | | | | | | | | | | | | | | ◆ |
| China | | | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ ^d | ◆ | ◆ |
| Colombia | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | | ◆ | ◆ | ◆ | ◆ | ◆ ^d | ◆ | ◆ |
| Costa Rica | | | | | | | | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ |
| Dominican Republic | | | | | | | | ◆ | ◆ | ◆ ^b | ◆ | ◆ ^d | ◆ | ◆ |
| Egypt | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | | ◆ ^b | ◆ ^b | ◆ ^b | ◆ | ◆ | ◆ | ◆ |
| El Salvador | | | | | | | | | | | | | | ◆ |
| Guam | | | | | | | | | | | | ◆ ^a | ◆ ^a | ◆ ^a |
| Guatemala | | | | | | | | | | | | ◆ | ◆ | ◆ |
| Haiti | | | | | | | | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ |
| Hong Kong | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ |
| India | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ |
| Indonesia | | | ◆ | ◆ | ◆ | ◆ | ◆ | | ◆ | ◆ | ◆ | ◆ ^d | ◆ | ◆ |
| Jamaica | | | | | | | | | | | | | | ◆ |
| Korea, Republic of | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ |
| Korea, D.P.R. | | | | | | | | | | | | | | |
| Macao | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ |
| Malaysia | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ |
| Maldives Islands | | | | | | | | | | ◆ ^d | ◆ | ◆ ^d | ◆ | ◆ ^d |
| Malta | | | | | | | | | | | | | | |

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| | EC | | | | | | | United States | | | | | | |
|--------------------------|------|------|------|------|------|------|------|---------------|----------------|----------------|------|----------------|----------------|----------------|
| | 1981 | 1982 | 1983 | 1984 | 1985 | 1986 | 1987 | 1981 | 1982 | 1983 | 1984 | 1985 | 1986 | 1987 |
| Mauritius | | | | | | | | | ♦ ^b | ♦ ^a | ♦ | ♦ ^d | ♦ | ♦ |
| Mexico | ♦ | ♦ | ♦ | ♦ | ♦ | ♦ | | ♦ | ♦ | ♦ | ♦ | ♦ | ♦ | ♦ |
| Nepal | | | | | | | | | | | | | ♦ | ♦ |
| Northern Marianas | | | | | | | | | | | | | ♦ ^a | ♦ ^d |
| Pacific Islands Trust | | | | | | | | | | | | | ♦ ^a | |
| Pakistan | ♦ | ♦ | ♦ | ♦ | ♦ | ♦ | ♦ | ♦ | ♦ | ♦ | ♦ | ♦ ^d | ♦ | ♦ |
| Panama | | | | | | | | | | | ♦ | ♦ | ♦ | ♦ |
| Peru | ♦ | ♦ | ♦ | ♦ | ♦ | ♦ | ♦ | ♦ | ♦ | ♦ | ♦ | ♦ | ♦ | ♦ |
| Philippines | ♦ | ♦ | ♦ | ♦ | ♦ | ♦ | ♦ | ♦ | ♦ | ♦ | ♦ | ♦ | ♦ | ♦ |
| Romania | ♦ | ♦ | ♦ | ♦ | ♦ | ♦ | ♦ | ♦ | ♦ | ♦ | ♦ | ♦ | ♦ | ♦ |
| Singapore | ♦ | ♦ | ♦ | ♦ | ♦ | ♦ | ♦ | ♦ | ♦ | ♦ | ♦ | ♦ | ♦ | ♦ |
| Sri Lanka | ♦ | ♦ | ♦ | ♦ | ♦ | ♦ | ♦ | ♦ | ♦ | ♦ ^d | ♦ | ♦ | ♦ | ♦ |
| Taiwan | ♦ | ♦ | ♦ | ♦ | ♦ | ♦ | ♦ | ♦ | ♦ | ♦ | ♦ | ♦ | ♦ | ♦ |
| Thailand | ♦ | ♦ | ♦ | ♦ | ♦ | ♦ | ♦ | ♦ | ♦ | ♦ | ♦ | ♦ | ♦ | ♦ |
| Trinidad & Tobago | | | | | | | | | | | | | | ♦ |
| Turkey | | | | | | | | | | | | ♦ | ♦ | ♦ |
| Uruguay | | | | | | | | | | | ♦ | ♦ | ♦ | ♦ |
| Vietnam | | | | | | | | | | | | | | |
| Yugoslavia | ♦ | ♦ | ♦ | ♦ | ♦ | ♦ | ♦ | ♦ | ♦ | ♦ | ♦ | ♦ | ♦ | ♦ |

Source: See Appendix A on data.

a. Subject only to an aggregate quota.

b. Subject only to monitoring; no quota limits.

c. Restrictions on value (as opposed to volume) of imports.

d. Data not available.

Table 4-AI.1 (continued)

| | Canada | | | | | | | Sweden | | | | | | |
|--------------------|--------|------|----------------|------|------|------|----------------|----------------|----------------|----------------|----------------|------|------|------|
| | 1981 | 1982 | 1983 | 1984 | 1985 | 1986 | 1987 | 1981 | 1982 | 1983 | 1984 | 1985 | 1986 | 1987 |
| Argentina | | | | | | | | | | | | | | |
| Bangladesh | | | | | ◆ | ◆ | ◆ | | | | | | | |
| Barbados | | | | | | | | | | | | | | |
| Brazil | | | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ |
| Burma | | | | | | | | | | | | | | |
| China | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ ^c | ◆ ^c | ◆ ^c | ◆ ^c | ◆ | ◆ | ◆ |
| Colombia | | | | | | | | | | | | | | |
| Costa Rica | | | | | | | | | | | | | | |
| Dominican Republic | | | | | | | | | | | | | | |
| Egypt | | | | | | | | | | | | | | |
| El Salvador | | | | | | | | | | | | | | |
| Guam | | | | | | | | | | | | | | |
| Guatemala | | | | | | | | | | | | | | |
| Haiti | | | | | | | | | | | | | | |
| Hong Kong | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ |
| India | ◆ | ◆ | ◆ ^d | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ |
| Indonesia | | | ◆ ^d | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ |
| Jamaica | | | | | | | | | | | | | | |
| Korea, Republic of | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ |
| Korea, D.P.R. | | | | | | | ◆ ^d | | | | | | | |
| Macao | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ |
| Malaysia | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ |
| Maldives Islands | | | | | | ◆ | ◆ | | | | | | | |
| Malta | | | | | | | | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ |

| | Canada | | | | | | | Sweden | | | | | | |
|--------------------------|--------|------|----------------|----------------|----------------|----------------|----------------|--------|------|------|------|------|------|------|
| | 1981 | 1982 | 1983 | 1984 | 1985 | 1986 | 1987 | 1981 | 1982 | 1983 | 1984 | 1985 | 1986 | 1987 |
| Mauritius | | | | ◆ ^d | ◆ ^d | ◆ ^d | ◆ ^d | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ |
| Mexico | | | | | | | | | | | | | | |
| Nepal | | | | | | | | | | | | | | |
| Northern Marianas | | | | | | | | | | | | | | |
| Pacific Islands Trust | | | | | | | | | | | | | | |
| Pakistan | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ |
| Panama | | | | | | | | | | | | | | |
| Peru | | | | | | | | | | | | | | |
| Philippines | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ |
| Romania | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ |
| Singapore | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ |
| Sri Lanka | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ |
| Taiwan | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | | | | | | | |
| Thailand | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ |
| Trinidad & Tobago | | | | | | | | | | | | | | |
| Turkey | | | | | | ◆ | ◆ | | | | ◆ | | | |
| Uruguay | | | ◆ ^d | ◆ ^d | ◆ ^d | ◆ ^d | ◆ ^d | | | | | | | |
| Vietnam | | | | | | ◆ ^d | ◆ ^d | | | | | | | |
| Yugoslavia | | | | | | | | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ |

Source: See Appendix A on data.

a. Subject only to an aggregate quota.

b. Subject only to monitoring; no quota limits.

c. Restrictions on value (as opposed to volume) of imports.

d. Data not available.

Appendix B—The Model

Structure of the Model

Our analysis in the paper is a partial equilibrium analysis; that is, we consider the market of each clothing “good” separately. Each good is differentiated by the place of production: (i) the product of domestic suppliers (group 1); (ii) the product of constrained foreign suppliers (group 2); and (iii) the product of unconstrained foreign suppliers (group 3). There is only one group of consumers in the model. This gives us the following three demand functions:

$$(A1) \quad QD_1 = \alpha_1 + \beta_1 PD_1 + \gamma_1 PD_2 + \delta_1 PD_3$$

$$(A2) \quad QD_2 = \alpha_2 + \beta_2 PD_1 + \gamma_2 PD_2 + \delta_2 PD_3$$

$$(A3) \quad QD_3 = \alpha_3 + \beta_3 PD_1 + \gamma_3 PD_2 + \delta_3 PD_3$$

where QD_i and PD_i are, respectively, the quantity demanded and the demand price of the i -th product. Supply is characterized by the following three supply-demand functions:

$$(A4) \quad QS_1 = a_1 + b_1 PS_1$$

$$(A5) \quad QS_2 = a_2 + b_2 PS_2$$

$$(A6) \quad QS_3 = a_3 + b_3 PS_3$$

where QS_i and PS_i are, respectively, the quantity supplied and the supply price of the i -th product.

Under the nonquota equilibrium (without the MFA) the following equalities hold:

$$(A7) \quad QD_1 = QS_1$$

$$(A8) \quad QD_2 = QS_2$$

$$(A9) \quad QD_3 = QS_3$$

$$(A10) \quad PD_1 = PS_1$$

$$(A11) \quad PD_2 = (1 + t)PS_2$$

$$(A12) \quad PD_3 = (1 + t)PS_3$$

where t is the tariff rate. Under the nonquota equilibrium, the above 12 independent equations determine 12 endogenous variables ($QD_1, QD_2, QD_3, QS_1, QS_2, QS_3, PD_1, PD_2, PD_3, PS_1, PS_2, PS_3$).

Under the quota equilibrium (with MFA) the values of QD_2 and QS_2 have to be exogenously determined by \bar{Q}_2 .

$$(A13) \quad QD_2 = \bar{Q}_2$$

$$(A14) \quad QS_2 = \bar{Q}_2$$

The demand price of product 2 is no longer the same as the tariff-inclusive supply price of product 2, but

$$(A15) \quad PD_2 = (1 + t)(1 + m)PS_2$$

where m is rate of price mark-up due to the MFA quota. Under the quota equilibrium, 13 independent equations [(A1)~(A7), (A9)~(A10), (A12), (A13)~(A15)] determine 13 variables ($QD_1, QD_2, QD_3, QS_1, QS_2, QS_3, PD_1, PD_2, PD_3, PS_1, PS_2, PS_3$ and m).

Estimation Method

In order to obtain the magnitude of the impact of the MFA, the values of endogenous variables in the above two equilibria were compared. Instead of estimating the values of all coefficients, we used an indirect method. We assumed that the prices and quantities observed in 1986 were equilibrium values determined by the specified system of supply and demand equations (under the MFA quotas) and we obtained values of parameters by using actual values of endogenous variables in 1986. Note that, when own-price elasticities, cross-price elasticities, and supply elasticities are known, we can obtain the values of b 's, β 's, γ 's, and δ 's. For example,

$$\begin{aligned} QD_1 &= \alpha_1 + \beta_1 PD_1 + \gamma_1 PD_2 + \delta_1 PD_3 \\ \varepsilon_{11} &\equiv - \frac{\partial QD_1}{\partial PD_1} \cdot \frac{PD_1}{QD_1} \\ &= -\beta_1 \cdot \frac{PD_1}{QD_1} \end{aligned}$$

where ϵ_{11} is the own-price elasticity of product 1, then,

$$\beta_1 = -\epsilon_{11} \cdot \frac{QD_1}{PD_1}$$

Since the own-price elasticities and cross-price elasticities of individual products are difficult to obtain, we used the Armington (1969) technique, which makes it possible to derive individual elasticities from the *aggregate* elasticity (η), the value share of each product (S_i), and the elasticity of substitution (σ). By assuming CES functions, Armington derived the following:

$$\begin{aligned} \frac{dX_{ij}}{X_{ij}} &= \epsilon_i \frac{dD}{D} \\ &\quad - [(1 - S_{ij})\sigma_i + S_{ij}\eta_{il}] \frac{dP_{ik}}{P_{ik}} \\ &\quad + \sum_{k \neq j} (S_{ik}\sigma_i - S_{ik}\eta_{il}) \frac{dP_{ik}}{P_{ik}} \\ &\quad + \sum_{k \neq i} \eta_{i/k} \frac{dP_k}{P_k} \end{aligned}$$

From this formulation, it follows:

$$\epsilon_{ii} = (1 - S_i) \sigma + S_i \eta$$

$$\epsilon_{ij} = (S_j \sigma - S_j \eta)$$

where ϵ_{ii} = own-price elasticity of product i , and

ϵ_{ij} = cross-price elasticity of product i with respect to the price of product j .

Furthermore, we obtained the value of shift parameters (α 's and a 's) by using available estimates of m (quota premium) and the values of the other parameters which were derived as described above.

Values of Key Parameters

(1) Quota premium (m) and tariff rate (t). See Table 4-AII.1 for the values of m and t .

(2) Demand elasticities

As explained above, individual own-price elasticities and cross-price elasticities can be obtained from the *aggregate* demand elasticity (τ_1), the elasticity of substitution among products (σ), and the value share of each product (S_i). S_i 's were calculated from actual trade data. We used $\eta = 0.282$: Houthakker's (1965) estimate, which is used in the Tarr-Morkre (1984) study. We set $\sigma = 3$, which is approximately the mid-point of the high and low estimates (4.39 and 1.41) used in the Tarr-Morkre study.

(3) Supply elasticities

We adopted the following values for supply elasticities: domestic suppliers, 1.5; constrained and unconstrained developing suppliers, 2.0.

Table 4-AII.1 Average Tariff Rates and Quota Premiums for Selected Apparel Products in the U.S. Market
(Percent)

| Item | Tariff rate (<i>t</i>) | Quota premium (<i>m</i>) |
|---|-----------------------------|-------------------------------|
| Knit shirts and blouses | 26.4 | 32.2 |
| Men and boys' shirts, not knit | 18.5 | 32.6 |
| Women and girls' shirts and blouses, not knit | 20.3 | 30.6 |
| Sweaters, man-made fiber | 28.4 | 36.8 |
| Trousers, slacks and shorts | 21.6 | 29.6 |
| Underwear | 19.3 | 28.9 |

Source: United States Department of Commerce Trade Tapes and Pelzman's (1988) estimates.

Sensitivity Analysis with Respect to Supply Conditions

The results of the main estimate using the parameter values reported above are presented in the main text Table 4-7. Table 4-AII.2 gives the comparable results when all three supply elasticities are set to infinity.

Table 4-AII.2 High Estimate for the Impact of the MFA on Selected Apparel Products in the U.S. Market, 1986

| Item | Increased value of shipments (US\$ million) | | | As a percentage of 1986 shipments | | |
|--|---|------------------------------|---------------|-----------------------------------|------------------------------|---------------|
| | Domestic suppliers | Developing country suppliers | | Domestic suppliers | Developing country suppliers | |
| | | Constrained | Unconstrained | | Constrained | Unconstrained |
| Knit shirts and blouses | 756.7 | -174.6 | 67.4 | 37.8 | -9.2 | 37.8 |
| Men and boys' shirts, nonknit | 363.3 | -94.0 | 63.7 | 39.2 | -8.9 | 39.2 |
| Women and girls' shirts and blouses, nonknit | 498.2 | -149.5 | 37.2 | 27.2 | -12.3 | 27.2 |
| Sweaters, man-made fiber | 140.0 | -60.7 | 95.5 | 31.5 | -12.7 | 31.5 |
| Trousers, slacks and shorts | 985.3 | -361.3 | 53.6 | 13.0 | -17.5 | 13.0 |
| Underwear | 53.9 | -22.3 | 1.7 | 2.6 | -21.8 | 2.6 |
| Total of the above | 2,797.2 | -862.4 | 319.0 | 18.8 | -12.7 | 25.3 |
| <i>Memo item:</i> | | | | | | |
| Changes due to quantity effect alone | 2,797.2 | -2,287.3 | 319.0 | 18.8 | -33.6 | 25.3 |

Notes

Valuable comments by B. Balassa, J. de Melo, M. Finger, C. Hamilton, J. Jalali, D. Keesing, M. Kelly, S. Laird, P. Meo, P. Messerlin, J. Pelzman, D. Tarr, J. Whalley and three anonymous referees are gratefully acknowledged. The authors are solely responsible for the remaining errors and imperfections. Opinions and interpretations expressed here are those of the authors and do not necessarily reflect the official position of the World Bank, views of its members, management or other staff.

1. Although the U.S. and the EC do have clear definitions as to which tariff lines comprise a given MFA category, this is not always the case in other markets.

2. OECD excluding Turkey.

3. In this section, for comparability across markets, textile products are defined exhaustively as all textile fibers, textiles, clothing and related goods covered by the MFA categories of any of the importing countries at any point in time during the 1981–87 period. To obtain total imports of textile products as the common denominator, the product group was defined broadly in SITC. It consists of SITC (rev.2) 26 + 65 + 83 + 84 + (6123 + 62103 + 66494 + 82122 + 85104 + 85105 + 89594 + 89984).

4. For the definition of developing countries, see footnote 36, below.

5. Excluding intra-EC trade.

6. For comparability with 1986, when EC(10) rather than EC(12) was considered, this ratio was 68 percent.

7. In averaging quota utilization over the MFA groups, any utilization rate above 115 percent was assumed to arise from data deficiency, since 15 percent is often the maximum flexibility in quota utilization. In these cases the quotas were adjusted upward to yield utilization rates of 115 percent.

8. Furthermore, there are the flexibility provisions in applying quotas as well as the possibility of significant revisions of quota levels.

9. In defining binding quotas, 90 percent as the cut-off point was arbitrarily chosen. A somewhat lower utilization rate would yield similar (yet less significant) results. Also, in countries where distribution of quotas is inefficiently administered, the effects of the quotas are felt much before they reach full utilization (see Kumar and Khanna in this volume).

10. See the table in Appendix A.

11. See note 3.

12. Overall average quota utilization rates are rough approximations obtained by taking averages across the markets by using values of restricted trade as weights.

13. Article 115 of the EC Treaty contains a safeguard clause to control the free movement of goods between individual EC members. This prevents goods from outside the EC that have been shipped to one EC country from being resold or “deflected” into another member country. Thus, in the extreme, a ban on the import of textile items can be imposed by separate EC countries if prior authorization is given by the EC Commission. Most Article 115 petitions are for textile

items, and most petitions are granted! In 1985, for example, out of 211 total petitions, 143 were for textiles; of these textile petitions, 119 were granted.

14. In this context, the EC's arrangement with the Turkish Association of Textile Exporters is particularly important due to the fact that Turkey is one of the main suppliers in this market.

15. Clothing was defined as the aggregate of market-specific MFA categories corresponding to SITC 84 to serve as a common denominator.

16. Weighted averages are for the periods 1981-83 and 1985-87. When an exporter was subject to restrictions during only part of the period, the average pertains to the applicable year(s).

17. Note that in Table 4-1 textile products were defined broadly in SITC to serve as a common denominator. Overall trade coverage ratios, especially in the EC, are considerably higher when based on own-MFA categories.

| | EC | | U.S. | |
|-------------------------------------|---------|---------|---------|---------|
| | 1981-83 | 1985-87 | 1981-83 | 1985-87 |
| Trade covered by quotas (percent) | 63.1 | 63.4 | 78.9 | 83.3 |
| Average quota utilization (percent) | 68.4 | 75.3 | 70.1 | 80.1 |

18. This appears to be the case of Singapore. Presumably due to quota rents, the phenomenon does not seem to surface often.

19. An emerging exporter which gains competitiveness in a limited number of products can soon fully utilize its quotas. This was the case for half of the dozen newcomers in the U.S. market.

20. This is because, with the exception of the EC, reliable data on import volumes exist only for the MFA categories that are subject to bilateral quotas.

21. In Canada and Sweden the number of unbound categories and suppliers was too small to treat them individually.

22. With the null hypothesis that the population means were equal, a "two tail" test was applied.

23. In this respect quantitative restrictions have an effect similar to that of specific as opposed to *ad valorem* duties.

24. Cline (1987), by using wholesale price indices, attempts to isolate the "upgrading" effect.

25. Intra-EC trade is included in the denominator of the market share. For comparability, EC(10) is considered for both 1981 and 1987.

26. This share, not reported in the Table, was slightly over 7 percent in both periods. Given the higher increase in unit values of the products under binding quotas, discussed in the previous section, the decline in volume share was considerable.

27. This share, not reported in the Table, was slightly over 39 percent in both periods.

28. The CBI countries qualify for the "Super 807" provision, whereby imports of textile products which use U.S. inputs fall under lenient special quotas (see, for example, World Bank 1988). The CBI beneficiaries are: Antigua & Barbuda, Aruba, Bahamas, Barbados, Belize, Costa Rica, Dominica, Dominican Republic, El Salvador, Grenada, Guatemala, Haiti, Honduras, Jamaica, Montserrat, Neth-

erlands Antilles, Panama, St. Kitts & Nevis, St. Lucia, St. Vincent & Grenadines, Trinidad & Tobago and British Virgin Islands.

29. For details of the model, see Appendix B.

30. This assumption seems to be valid for many inexpensive clothing items. Developed countries import substantial amounts from developing countries while the reverse is insignificant. The main shortcoming of the model, on the other hand, is that it does not incorporate the simultaneous impact of the other major developed country markets, particularly the EC.

31. We shall call a category of clothing (for example, shirts) a "good," and the same good from different suppliers a "product."

32. Note that m is endogenous in the model. However, in our model estimations we plug in previously estimated value of m . See Appendix B for details.

33. Otherwise the model treats domestic producers and unconstrained developing country suppliers similarly.

34. Trela and Whalley (1988) estimated that U.S. imports would have been 130 percent higher than its current level if there were no MFA quotas. Our comparable figure is 15 percent (and 35 percent assuming infinite supply elasticities). There were three sources for this discrepancy: (i) the parameter value used for the import demand elasticity (0.28 in the present paper versus 0.60), (ii) substitutability of goods (the Armington assumption adopted here versus homogeneous goods), and (iii) the simplification adopted by Trela and Whalley that all quotas were binding.

35. Although some of the sixteen MFA categories that comprise the six items were under restriction in a few of the CBI countries during this period, these countries can be considered unconstrained on the whole. In only three instances during the six years were quotas filled by more than 90 percent—twice for Haiti and once for the Dominican Republic.

36. For comparability developing countries and territories are defined in accordance with the most commonly used definition. This classification has no prejudice whatsoever as to the status of the countries and territories and their treatment by the World Bank. Accordingly, developed market economies comprise the OECD (excluding Turkey), Israel and South Africa. Socialist (developed) countries consist of Eastern European socialist countries (including the U.S.S.R. but excluding Romania and Yugoslavia). All other countries, including socialist countries of Asia (and Romania, Turkey and Yugoslavia) are designated as developing countries.

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5

Adjusting to Textile and Clothing Quotas: A Summary of Some Commonwealth Countries' Experiences as a Pointer to the Future

Vincent Cable

This paper makes use of the recent experience of some developing country textile and clothing exporters to cast light on two related, but different, questions: what has been the past impact of restrictions on exporters, and how might future restrictions (or liberalization) affect them? The questions can be further subdivided into two others: the aggregate impact and the distributional impact between countries.

There appears to be very little consensus on these issues, as opposed to what Trela and Whalley in chapter 2 of this volume call "folklore." Some of the literature has pointed to the severity of restrictions and—by implication—to the potential gains to developing countries as a whole from dismantling them; other contributors have pointed to the porosity of the regime and the limited scope for stimulating additional developing country exports by liberalizing it. (Some, of course, try to have their cake and eat it too; protectionists in developed countries, for example, claim at one and the same time that the restrictions are ineffective, but that dire consequences will befall their industry if liberalization takes place.) There are marked differences of view, too, as to the extent to which restrictions have diverted trade among developing countries and

whether the main Asian newly industrialized countries (NICs), the low-income countries of Asia or new suppliers—as in sub-Saharan Africa—will gain or lose from liberalization. And superimposed on these calculations is the—disputed—effect of quota rent as a potentially compensating factor for some or all exporters. All these differences of view are far from academic; they color the approach governments take to negotiations.

This paper has no methodological pretensions beyond anecdote and example chosen from a subset of countries—the Commonwealth—which is not of any intrinsic economic significance, but has a good cross section of country size, income level and economic characteristics. A major effort has to be made to try to develop the work of Whalley and Trella and others in modeling the sector's trade to test policy simulations. But there is also a role for country and industry studies to capture some important elements of complexity that models cannot. I would like to stress four points.

First, while the garment industry is reasonably homogenous in its basic production characteristics, there are some important differences, particularly between standardized and increasingly mechanized sub-sectors (jeans, stockings) and those where more complex, labor-intensive, activities are involved—such as embroidery. Studies of importing countries have also shown how, even when general conditions are unfavorable to manufacturing, there are individual firms which will find a niche in competitive production (Cable 1983).

Second, the linkages between “upstream and downstream” activities, from fibers, through spinning, weaving, dyeing and finishing to garment assembly can be important, both in terms of economics and politics. In particular, the importance of man-made fibers producers in shaping the structure of the textile and garment (or more especially knitted goods) industries is described in Cable (1983) and Shepherd (1981).

Third, the concept of “comparative advantage,” is a good deal more complex than derived from the crude, two-factor, Heckscher-Ohlin model, from which it is usually inferred that global garment production, at least, will gravitate to developing countries, and relatively low-wage countries among them. There is a key role too for a complex bundle of attributes, broadly describable as “human capital”—organizational skills in production and marketing and design capability—and an important dynamic element in comparative advantage that allows for learning behavior and flexibility in response to rapid change. There is also a constant process of technical change in respect to products and processes that has already quite radically affected the basis of international specialization in textiles and may well do so for garments.

Fourth, there is a very complex set of preferential trading arrangements within and outside the MFA, especially as it affects the European

Community (EC) (agreements with its Mediterranean associates and with ACP countries) and the United States (the Caribbean basin) and special arrangements for "offshore processing." Not least of the complexities is the fact that the dividing line between developed and "low-cost" developing countries, which formed the basis for the LTA and MFA in the 1960s and 1970s, is beginning to look less and less relevant to a world where some leading developing country exporters have living standards and wages comparable to those of the industrialized world and where some of the strongest pressures for continuing protection come from countries—like Italy and Portugal—which are "low-cost" exporters within the developed world.

The Aggregate Picture

One of the positive stories to emerge from the history of the MFA is the way that entrepreneurial flair has repeatedly come up with ways of circumventing bureaucratic controls. The cumulative impact has been a continuing rate of growth of developing country exports under the MFA which is somewhat at odds with the pessimistic forecasts made by some of us on the basis of a progressive widening and tightening of controls. A question has to be posed: has the MFA's bark been worse than its bite? While there has been much efficiency-sapping trade diversion and switching between products on noncommercial grounds, it is far from clear that the aggregate effect on developing country exports of textiles and clothing has been substantial. A related future issue, then, is whether—if the MFA has been porous in practice—future liberalization would do much to increase developing country exports overall, rather than straighten out some past distortions. On this, the ex post analysis and ex ante simulations and predictions seem to point to different conclusions.

As we show in Table 5-1, which is a rather crude exercise in tracing the real rather than nominal growth of exports under the MFA, there was a clear sign of a sharp brake on growth in the 1976-78 period which can be traced to the tighter controls under the MFA II with the "reasonable departures" provisions introduced at the behest of the EC. Since then, growth has been larger than the 6 percent originally set as the ceiling for permitted volume of export growth under the MFA (albeit for restrained categories). In 1987, the last year for which records are available, there appears to have been real growth of just over 20 percent. It is possible that the rather unsophisticated use of price indices used here has produced a distorting effect. In particular, it may fail to reflect any upward movements of quota premiums in raising the rate of increase of textile and clothing prices over those of other traded manufactures—

Table 5-1 Growth in Real Terms of Imports From Developing to Developed Countries

| | 1963-76 | 1976-78 | 1978-84 | 1984-87 |
|----------|---------|---------|---------|---------|
| Textiles | 7.2 | 4.6 | 3.7 | 11.2 |
| Clothing | 20.9 | 4.8 | 10.9 | 8.2 |
| Total | 14.1 | 4.8 | 9.0 | 8.8 |

Source: 1963-84 From Martin Wolf, 1989. Updated using GATT's International Trade 1987/88, and deflated by general manufacturing price index for trade.

though there is no strong evidence that these premiums have moved strongly and consistently upward in the 1980s.

One way of avoiding the problems of price indices is to look at levels and rates of change of market penetration, though this also presents problems of interpretation (import penetration in value terms may significantly understate market penetration in volume terms if, as in this case, the unit values of exports from developing countries are substantially less than the competing products of developed countries; on the other hand, the rate of change of import penetration may overstate growth in volume terms if unit values are rising relatively rapidly—because of the influence of quota premiums and “upgrading”). The statistics—from the OECD (see Tables 5-2 to 5-4)—are also problematic, with a large scope for error. Nonetheless they show that, for the period 1975-83, there was rather rapid growth of market penetration by developing countries of developed country markets in textiles and clothing in comparison with other manufactured goods; in fact, this was the case for nine out of ten countries (Table 5-4). The rate of growth of market penetration in clothing by developing countries is one of the largest among manufacturing categories, which is somewhat surprising since,

Table 5-2 Market Penetration of Developed by Developing Countries %

| | Textiles | Clothing | All Manufactures |
|-----------------------------|----------|----------|---------------------|
| All World | | | |
| 1975 | 16.2 | 21.4 | 15.0 |
| 1981 | 20.7 | 32.1 | 16.9 |
| 1983 | 19.4 | 30.7 | 17.5 |
| 1985 | 21.5 | 36.4 | 19.2 |
| Developing Countries | | | |
| 1975 | 3.0 | 8.9 | 2.0 |
| 1981 | 4.7 | 16.8 | 2.9 |
| 1983 | 4.6 | 17.1 | 3.1 |
| 1985 | 5.0 | 17.8 | 3.3 |

Source: Derived from OECD Working Papers No. 31 and 60. 1985 figures added by using GATT figures on developing countries share of trade and by adjusting the series to the same base.

while the notion of comparative advantage could lead to a prediction that clothing should have a relatively high *level* of market penetration, high *growth* of market penetration is more commonly found in nontraditional areas of specialization where developing countries start from a low base.

Global trade figures tell broadly the same story. According to GATT, clothing in the 1980s (1980–87) recorded the second highest growth in world trade of sixteen industry groups, after information technology equipment (and developing countries' share of that trade in value terms was roughly the same—42 percent—at the end of the period as at the beginning). Yet trade in clothing was perhaps the most tightly “managed” of all the industry groups, excepting possibly iron and steel. All of this suggests a world somewhat different from that of heavily suppressed supply, which is suggested by the main, *ex ante*, studies of the potential effects of liberalization. Among these are the UNCTAD (1986) and Kirmani and others (1984) studies which suggest an appreciative doubling of developing country exports to the OECD for both textiles and clothing, and the more recent work of Trela and Whalley, which suggests even larger potential increases in developing country exports—by over 200 percent in the main markets: the EC, the United States and Canada.

In fact, the *ex post* and the *ex ante* analysis is not necessarily at odds for two reasons. The first reason is that while the growth and extent of market penetration by developing countries has been substantial, especially in clothing, it could have been a good deal faster and penetrated further without restrictions. Some indication of the unexploited potential for further market penetration by developing countries can be gained by looking at the most open developed country economies, like Germany, where the market penetration rate by developing countries is roughly double the OECD average, and that in a partially protected market and with strong competition from Eastern Europe. And there is, in addition, the possibility of some end-use demand, as a whole, expanding from a more price-competitive environment.

We need, however, to be careful here and not aggregate the possibilities of additional market penetration (and demand growth) being generated by liberalization. The current *average* level of market penetration of the OECD by developing country exporters in clothing is around 18 percent in value terms (much less for textiles). Unit values are, however, much lower, even allowing for increased unit values due to upgrading and quota premium consideration. A comparison of unit values (for example, by comparing intra-EC and extra-EC border prices) suggests that *on average* those of developing countries are around half those of industrial countries, so import penetration in volume terms by developing countries is already close to 35 percent for industrial countries as a

Table 5-3 Import Penetration Ratios in Selected Developed Countries
(Percent)

| Group/Year* ISIC (Code) | Canada | USA | Japan | Australia | France | Fed. Rep. of Germany | Italy | Norway | Sweden | U.K. |
|----------------------------|--------|-------|-------|-----------|--------|-------------------------|-------|--------|--------|-------|
| World | | | | | | | | | | |
| 1975 | | | | | | | | | | |
| 3 | 29.75 | 7.01 | 4.94 | 22.78 | 17.91 | 24.25 | 21.92 | 43.85 | 35.12 | 21.95 |
| 321 | 27.72 | 3.67 | 6.10 | 34.02 | 19.04 | 28.06 | 17.85 | 54.21 | 54.98 | 22.45 |
| 322 | 14.83 | 9.80 | 8.32 | 21.67 | 16.57 | 44.91 | 17.61 | 66.24 | 62.00 | 27.48 |
| 1983 | | | | | | | | | | |
| 3 | 28.17 | 10.28 | 6.26 | 23.45 | 26.21 | 35.11 | 31.19 | 44.23 | 44.92 | 29.32 |
| 321 | 24.74 | 5.30 | 6.92 | 39.35 | 98.51 | 41.52 | 25.05 | 58.17 | 75.07 | 38.77 |
| 322 | 19.92 | 20.27 | 13.04 | 23.66 | 33.10 | 73.17 | 67.58 | 86.49 | 90.93 | 39.97 |
| Non-OECD Total | | | | | | | | | | |
| 1975 | | | | | | | | | | |
| 3 | 1.78 | 2.16 | 2.02 | 3.55 | 2.04 | 3.64 | 3.22 | 3.40 | 4.21 | 3.54 |
| 321 | 3.85 | 1.62 | 3.74 | 10.76 | 2.20 | 5.07 | 4.14 | 4.35 | 8.58 | 4.67 |
| 322 | 8.84 | 7.89 | 6.25 | 15.52 | 4.64 | 18.63 | 5.61 | 11.57 | 18.65 | 15.53 |
| 1983 | | | | | | | | | | |
| 3 | 2.25 | 3.63 | 2.11 | 4.68 | 3.66 | 5.74 | 6.25 | 4.34 | 6.04 | 3.99 |
| 321 | 5.67 | 2.71 | 4.32 | 16.62 | 13.76 | 9.37 | 6.29 | 5.81 | 12.49 | 6.35 |
| 322 | 15.56 | 18.05 | 10.10 | 18.92 | 10.88 | 34.83 | 26.49 | 12.73 | 29.33 | 20.73 |

| Group/Year* ISIC (Code) | Canada | USA | Japan | Australia | France | Fed. Rep. of Germany | Italy | Norway | Sweden | U.K. |
|---|--------|-------|-------|-----------|--------|-------------------------|-------|--------|--------|-------|
| Developing (Africa/America and Asia NICS) | | | | | | | | | | |
| 1975 | | | | | | | | | | |
| 3 | 1.32 | 2.01 | 1.68 | 3.21 | 1.34 | 2.42 | 2.09 | 2.19 | 1.97 | 2.57 |
| 321 | 3.16 | 1.56 | 3.65 | 9.90 | 1.71 | 4.28 | 3.40 | 2.37 | 6.68 | 3.98 |
| 322 | 8.23 | 7.73 | 6.20 | 15.19 | 3.33 | 14.68 | 3.20 | 9.37 | 16.20 | 13.70 |
| 1983 | | | | | | | | | | |
| 3 | 2.08 | 3.44 | 1.89 | 4.33 | 2.74 | 4.02 | 4.73 | 2.77 | 3.22 | 3.12 |
| 321 | 5.10 | 2.63 | 4.14 | 15.80 | 11.43 | 7.97 | 5.20 | 4.38 | 10.23 | 5.25 |
| 322 | 15.06 | 17.82 | 10.08 | 18.65 | 9.30 | 28.70 | 20.24 | 11.37 | 26.81 | 17.41 |
| NICS | | | | | | | | | | |
| 1975 | | | | | | | | | | |
| 3 | 0.79 | 0.88 | 0.68 | 1.27 | 0.30 | 1.16 | 0.66 | 0.87 | 0.84 | 0.84 |
| 321 | 1.63 | 0.72 | 1.92 | 4.62 | 0.43 | 1.37 | 1.56 | 0.87 | 2.53 | - |
| 322 | 6.94 | 6.32 | 5.13 | 9.23 | 0.78 | 13.06 | 1.36 | 8.13 | 13.23 | 12.67 |
| 1983 | | | | | | | | | | |
| 3 | 1.48 | 2.06 | 0.86 | 2.55 | 0.87 | 1.87 | 1.44 | 1.60 | 1.78 | 1.44 |
| 321 | 3.03 | 1.36 | 1.64 | 9.81 | 2.84 | 2.21 | 1.45 | 1.64 | 3.97 | 2.03 |
| 322 | 11.94 | 12.79 | 7.46 | 12.38 | 2.41 | 20.00 | 4.60 | 8.25 | 19.10 | 13.60 |

Source: O.E.C.D. Department of Economics and Statistics, "Compatible Trade and Production data base, 1970-1983", Working Papers No. 31 March 1986.

*The codes are: 3 manufactures; 321 manufacture of textiles; 322 manufacture of wearing apparel except footwear.

Table 5-4 Compound Growth Rates of Import Penetration Ratios in Selected Developed Countries

| Group/Code* | Canada | USA | Japan | Australia | France | Fed. Rep. of Germany | Italy | Norway | Sweden | U.K. |
|--|--------|-------|-------|-----------|--------|-------------------------|-------|--------|--------|------|
| World | | | | | | | | | | |
| 1975-1983 | | | | | | | | | | |
| 3 | -0.68 | 4.90 | 0.79 | 0.36 | 4.87 | 4.73 | 4.51 | 0.11 | 3.12 | 3.69 |
| 321 | -1.41 | 4.70 | 1.59 | 1.84 | 22.81 | 5.02 | 4.33 | 0.89 | 3.98 | 7.07 |
| 322 | 3.76 | 9.51 | 5.78 | 1.10 | 9.03 | 6.29 | 18.31 | 3.39 | 4.90 | 4.79 |
| Non-OECD | | | | | | | | | | |
| 1975-1983 | | | | | | | | | | |
| 3 | 2.97 | 6.70 | 0.55 | 3.51 | 7.58 | 5.86 | 8.64 | 3.10 | 4.52 | 1.51 |
| 321 | 4.96 | 6.64 | 1.82 | 5.59 | 25.75 | 7.98 | 5.37 | 3.68 | 4.81 | 3.92 |
| 322 | 7.32 | 10.90 | 6.18 | 2.51 | 11.24 | 8.14 | 21.41 | 1.20 | 6.82 | 3.68 |
| Developing (Africa+America +Asia+NICS) | | | | | | | | | | |
| 1975-1983 | | | | | | | | | | |
| 3 | 5.85 | 6.96 | 1.48 | 3.81 | 9.35 | 6.55 | 10.75 | 2.98 | 6.33 | 2.45 |
| 321 | 6.17 | 6.75 | 1.59 | 6.02 | 26.80 | 8.08 | 5.45 | 7.98 | 5.47 | 4.52 |
| 322 | 7.85 | 11.00 | 6.26 | 2.60 | 13.70 | 8.74 | 25.93 | 2.45 | 6.50 | 3.04 |
| NICS | | | | | | | | | | |
| 1975-1983 | | | | | | | | | | |
| 3 | 8.16 | 11.22 | 2.98 | 9.10 | 11.95 | 6.15 | 10.24 | 9.84 | 9.84 | 6.97 |
| 321 | 8.06 | 8.27 | -1.95 | 9.87 | 26.61 | 6.16 | -0.91 | 5.79 | 5.78 | 1.51 |
| 322 | 7.02 | 9.21 | 4.79 | 3.74 | 15.14 | 5.47 | 16.45 | 0.18 | 4.70 | 0.89 |

Source: Estimated from data as in Table 5.3.

*The codes are: 3 manufactures; 321 manufacture of textiles; 322 manufacture of wearing apparel except footwear.

whole. Disregarding trade barriers, there are economic factors preventing market penetration from expanding to its arithmetic limits. There are parts of the garment and knitwear industries, in particular, where the technology (capital-intensive methods, as employed, for example, in stocking and lingerie manufacture), demand characteristics (where consumer preferences for quality or particular brands render a product price inelastic), or the exceptional performance of particular firms continue to preserve substantial niches for developed country producers—and this is underlined by the fact that roughly 5 percent of developed country production of garments is exported to developing countries. There is, in addition, the considerable and probably growing importance of delivery costs, ease of communication and speed of response which confers an advantage on firms with close proximity to markets or good communications infrastructure. All these are natural rather than artificial barriers to further market penetration.

A second consideration is that, whatever loopholes may have existed in the past (through partial country and product coverage by quotas and the carry-over, carry-forward and swing provisions), they have been progressively closed to a point where the scope for strong growth by the MFA exporters is now more difficult, in particular:

- the use of various forms of global quotas superimposed on separate country or product quotas (as in the global quotas for the EC's sensitive products and the U.S. system of aggregate limits for broad product groups on top of subproduct quotas)
- the use of antisurge devices and monthly limits (by the United States) to control flows within an annual agreed quota
- quota subdivision by product and, in the EC, by EC regional quotas, reducing quick utilization
- looser definitions of market disruption (for example, the "presumption of market disruption" in the United States) and tighter rules of origin and certification generally
- broader fiber coverage
- reduced swing, carry-forward and carry-over percentages in bilateral agreement.

Not all the movement, however, has been in the same direction (the EC has removed some countries from quotas under the MFA IV and also removed some quotas that are consistently underutilized). And there is convincing evidence from some countries—notably from India (see Kumar and Khanna, in this volume)—that quotas are showing increasing signs of "biting," with reduced investment and lower rates of capacity utilization among producers. Nonetheless the ability of exporters to circumvent quota restrictions should not be underestimated. Indeed,

1987, the first year of the MFA IV, shows a larger annual growth in both clothing and textile imports to developed countries than for many years (with this exceptional growth widely spread—in the United States, EC, Japan and elsewhere).

The thrust of the above argument is to question the extent to which the MFA has been an effective barrier in the past and, by implication, to raise doubts about the magnitude if not existence of the benefits—to developing countries as a whole—that may arise from its removal. This is in no way to diminish the case for getting rid of the MFA on broad grounds of economic efficiency—including the possibility of some additional export earnings to developing country exporters—and for systemic reasons, to remove a blatantly discriminatory and protectionist arrangement. But it does also suggest the value of looking at the ways in which individual countries, or developing countries as a whole, through various forms of trade diversion, have maintained growth and might continue to do so, should the MFA continue or be phased out only after a transitional period.

Adapting to Quotas

There are various ways exporting countries' industries can adapt to quota restrictions:

- maximizing utilization of quotas
- higher unit values within quotas through upgrading
- product diversification
- market diversification
- rent maximization.

These are, in part, private sector responses, but public policy has a direct bearing on most of them through the operation of the export quota system.

Quota underutilization. There is now sufficient experience of different types of schemes to know that one which encourages maximum utilization over the medium to long term is likely to have the following elements:

- a majority, but not an overwhelming majority, of quotas pre-allocated on a performance basis to give established producers some stability for long-term investment decisions (though whatever advantages accrue from predictability have to be set against the wider developmental disadvantages of favoring politically powerful producers)

- a substantial share for new exporters, allocated on a first-come, first-served or auction basis, against evidence of export orders
- penalties (in terms of future allocations) for nonfulfilment
- some opportunity for secondary market resale of unused quotas, against evidence by quota purchasers of export orders
- avoidance of subproduct categorization that adds even further to the MFA rigidities.

Full quota utilization remains an important ongoing objective, as well as being necessary for new products or countries newly brought under control. However, it is essentially a once-and-for-all source of improvement. It is, moreover, not solely a function of quota management efficiency but also depends on the economic fundamentals governing export competitiveness as well as the particular factors governing competitiveness in each of the quota categories.

Upgrading has taken two forms and the process has gone furthest in Hong Kong. On the one hand, there has been a conscious effort to improve quality: "the successful quality upgrading program has allowed sales volume to grow within the confine of quantitative quota restrictions" (Tsang 1988). On the other hand, there has been a progression to increasing value added through the services provided to the customer. Traditionally most Hong Kong manufacturers made garments with almost everything supplied by the customers—design, fabric, and in some cases strong supervision by the customer of the technical procedures, but there has been a "very successful strategy" of adding local services value added in the form of "fabric development and servicing, product sourcing" (*Textile Asia* 1988). Recent years have also seen the emergence of Hong Kong as a design center.

What is unclear about the Hong Kong experience, however, is whether this development has been driven by quotas, or expectation of quotas, or by a natural process of market adjustment in a relatively high-wage-cost exporter in the face of lower-cost competition. That the former is at least part of the incentive is suggested by the fact that some of the lowest labor-cost exporters are following a similar route. In Bangladesh, for example, there has been substantial new investment, even within quota-controlled categories, designed to improve physical productivity and design and quality characteristics. There is also increased attention to building up local value addition through backward linkages to create local industries supplying fabric, buttons, cardboard stiffeners, fasteners and the like (*Bangladesh Today* 1988).

The Kumar and Khanna paper on India (chapter 8 in this volume) is perhaps the best-documented source of quality improvement—including improved finishing through better design and greater fashion con-

sciousness, and use of brands—but the authors are reluctant to attribute this to quotas rather than natural evolution.

The quota system may nonetheless have some bearing on this evolution. Most quota schemes have, among their objectives, that of upgrading to be achieved by preferential allocation of quotas or through floor price or auction systems that make lower unit value products less profitable. The danger is that administratively imposed rather than market preferences for upgrading can result in quota underutilization (as has happened in Taiwan, inter alia) or are simply ineffective since it is all too easy for exporters to present false evidence of their “high value” exports.

Product diversification is an obvious response to product-specific quotas and much of the history of the MFA has revolved around the attempts of exporters to open up new lines of production faster than importing countries can close them. This has partly involved moving into new products, uncontrolled for particular suppliers, and partly the use of new products and fibers—as with ramie under the MFA III. Nonetheless, continued product diversification is recognized explicitly as an option by most exporters, albeit at a resource cost. For example, now that Indian exporters have reached 100 percent quota utilization in the main quota markets, the future is seen in diversification from cotton-based garments to synthetic and blended fabric items: “Indian exporters therefore needed new types of fabric, especially for manufacture of items with good export potential like swim wear, military clothing, rain wear and industrial clothing” (*Textile Asia* October 1987). But this requires liberalization of imports of nonavailable fabrics and access to the latest imported technology for garment production, so future production would have a higher import content than current garment production.

Market diversification to nonquota markets is a major priority for most exporters. There may, however, be only limited additionality here, in as much as developing country exporters are competing with each other for the non-OECD markets, though some additionality may come from displacing the OECD exporters, from the stimulation of demand with greater competition and the opening of some new markets such as the Soviet Union. There are also additional possibilities from exporters spreading their export marketing efforts more evenly among quota markets to build on lower market shares and quota resistance in some of them. In India, where almost 90 percent of garment exports are to quota markets, efforts have been made to shift marketing efforts into nonquota markets by using the quota distribution system to reward companies with good performance in such markets. Exports of fabrics to the Soviet Union have become a major source of earnings for the textile industry. The Pakistan textile industry has won large orders in Japan (provoking calls for trade restrictions). Bangladesh garment exporters

have started selling to the Soviet Union and Japan as well as the EC, the United States and Canada. The leading Sri Lankan exporter, Mayura, has started to secure substantial orders from Japan, the Soviet Union and the Gulf States as part of an effort to diversify from the U.S. market, though currently these new markets amount only to around 2 percent of exports for the sector. Some exporters have already established a market niche outside the quota markets. Cypriot companies, despite having preferential access to the EC market, have expanded clothing and textile export primarily in Middle Eastern markets, such as Libya.

Foreign investment (or overseas subcontracting) is normally seen in the context of trade diversion to new sources of supply and is discussed as such below. But it should not be forgotten that such sourcing provides an alternative source of income for quota-limited manufacturers and factor income for the quota restrained economy as a whole. Kumar and Khanna (chapter 8 in this volume) document the use of this form of adaptation by 23 of 177 Indian firms studied—to Nepal, Sri Lanka, Bangladesh, Mauritius, Indonesia, the Caribbean, Pakistan and Hong Kong. Following an initial move by Hong Kong firms—to Taiwan, Malaysia, Singapore and Thailand—firms from Hong Kong, Taiwan, and the Republic of Korea have recently been prominent in China, Indonesia, Philippines, Jamaica, Costa Rica, the Dominican Republic, Panama, Maldives, Bangladesh and Mauritius. One survey traced around 20 investments from Korea alone in the Caribbean and Central America (in Honduras, the Dominican Republic, Costa Rica, Jamaica, St. Lucia and Guatemala) (*Business International* 1989, and Hamilton and Kim, chapter 7 in this volume).

There are two interesting twists to this form of adjustment. One is the attempt to jump over quota restrictions by investing directly in developed countries, in some cases by finding a low-cost "back route" into the OECD countries (Hong Kong firms in Saipan and the U.S. Virgin Islands as well as in Spain, Portugal and Ireland) and in others by investing directly in the main consuming countries, as Hong Kong and Korean firms have done in the United Kingdom and the United States (following the pattern of the Japanese, Taiwanese and Korean firms which have similarly "jumped" quotas affecting consumer electronics or cars). Another interesting twist is that the process of moving "off-shore" has been accompanied by key production and technical personnel; in some countries (Jamaica, Maldives, Saipan) the labor force itself has been partly recruited from the country of origin of the investment or elsewhere in Asia (*Textile Asia* August 1988). It could be said that a fundamentally new kind of business is being created in which, say, a company which is headquartered in Hong Kong has branches throughout the developing world and has an internally integrated buying and distribution operation, effectively assuming the role which has hitherto

been played by importing and retailing buying houses in the OECD countries.

Quota rent. The final mechanism by which exporters can seek to enlarge earnings under quota regimes is to maximize quota rent earnings in those activities where quotas do represent a constraint, and so generate scarcity values. The discussion on overall values is summarized by Goto (1989), who concludes that while the quota rent is "huge" it is much smaller than the value of forgone exports—even if the rent is wholly appropriated by the exporting country (rather than by importers in the developed country who have monopoly power over small, fragmented sellers in developing countries).

A different question with more immediate policy relevance is how to organize an export quota system which secures maximum retention of quota rent. At the same time such a system would have to recognize that the split between government and the private sector is also of interest. Several broad approaches to quota allocation are adopted. One is to auction quotas to the highest bidders—as Singapore does for part of its quota distribution—which should ensure a high level of retention of rent income (but exclusively by the government). A variant of this approach is for some of the quota to be allocated on a first-come, first-served basis, but subject to minimum prices being secured by exporters—a mechanism that runs the danger of being bureaucratic and arbitrary (officials determine "normal" profits above which rents are assumed to accrue, Kumar and Khanna, chapter 8 in this volume). Another, as in Hong Kong, is to allocate quotas administratively but to permit free resale to ensure that the rent income goes to local agents in Hong Kong but, in this case, to the private sector.

Even the existence of such provisions does not ensure that rent is retained domestically—Kumar and Khanna argue that about half the rent goes to developed country importers under the Indian system. The Hong Kong situation—where Hamilton has shown that 1 to 2 percent of GDP may be quota-rent income (itself much less than estimates by Morkre of 1980s) must be regarded as highly exceptional (Hamilton 1986, Morkre 1984). But if it is true that quotas are now biting seriously, there is accordingly a rent which exporting countries should be thinking of how to use through an enhanced efficiency of their quota allocation system. How should the rent be distributed between the private and public sectors, and between domestic and foreign subjects, for example?

Adapting to Quotas through Trade Diversion

There are contending influences of the MFA on new suppliers. One is the creation of new market opportunities as major suppliers are re-

strained. Another is the effect of uncertainty and the threat of quotas in deterring new suppliers, as well as the incidence of quotas on relatively small volumes of exports from these countries in comparison with the traditional suppliers. These influences are superimposed on underlying economic forces which are changing the relative competitiveness of different suppliers over time, but which are concealed by a quota system which regards historic performance rather than current relative costs as the basis for market shares.

There are two distinct arguments concerning the role of these new and smaller suppliers. The first is whether or not the overall restrictiveness of the MFA has been largely vitiated by trade diversion to these countries (as well as rapid diversification, better quota use, etc. within the heavily restrained traditional suppliers). The second is whether or not the shift to these suppliers—or some of them—is part of a natural evolution of world textile and clothing trade exporting toward lower-wage economies (or other cost advantages such as proximity) away from the traditional, big Far Eastern suppliers or, alternatively, whether it is a largely artificial creation which would be reversed if market shares were market determined. There appear to be quite radically different views in the literature on both these questions.

What is not in doubt is that the ability of developing countries as a whole to raise their share of imports and consumption in importing countries in the 1980s has been due in no small measure to export expansion by the smaller suppliers. As Erzan and others show in chapter 4 of this volume, in both the EC and the United States the three major exporters have lost import market share, but this has been more than offset by the increasing market shares of some newer exporters such as (in the United States) Bangladesh, China, Egypt, Indonesia, Jamaica and other Caribbean states, Maldives, Mauritius and (in the EC) Pakistan, Sri Lanka, Thailand, Turkey and Yugoslavia. Those authors argue that much of the expansion of these countries, taken as a whole, would have occurred anyway, and they attribute little to the affect of the MFA on major suppliers. Moreover, by implication, were trade now liberalized many of the relatively new and small suppliers would continue to expand in a context where developing countries' overall market share was substantially greater.

Various methodologies can be employed to address these issues. One is to make use of *quota utilization* data to try to assess which exporting countries are seriously constrained by quotas, and which are not, and are thus, by implication, relatively uncompetitive in market conditions. Erzan and others identify several countries which have had, over the 1981–86 period, consistently underutilized quotas in the EC—Malaysia, Singapore, Romania, Colombia, India, and Mexico—and others that have consistently made good use of quotas—a mixture of major suppli-

ers (Hong Kong; Korea; Taiwan) and some new entrants (China, Thailand, Egypt, Pakistan, Peru, Yugoslavia, Brazil). To a degree, this coincides with more casual observation; in relation to Malaysian and Singaporean exporters, most observers would generally concede that their exports are artificially protected under the MFA, while the full utilization cases include both the NICs that are competitive on the strength of high productivity levels, quality, reliability, and good marketing and distribution channels and some major low-wage-rate suppliers, notably China and Pakistan. But quota utilization rates are, as already discussed, heavily affected both by temporary economic exigencies, such as a period of real exchange rate over- or undervaluation, and by the administration of quotas; India, in particular, has transformed its quota utilization performance by addressing both of these policy issues. Thus, this method provides a very rough and ready guide.

An entirely different approach is the *model simulation exercise* of Trela and Whalley (1988 and in this volume). Some ingenuity is used to derive the relative supply price of different suppliers—notably the use of a plausible productivity corrective—and to produce a product and country disaggregated model. The main conclusions—that there could be large increases in developing country exports in general, by around 200 percent in the main markets, and gains to almost all individual developing countries—are immensely encouraging to these countries, if they can be believed. But, as the authors acknowledge, the conclusions are highly sensitive to various elasticity assumptions, and to the assumption governing the extent of rent transfer to importing countries. The assumptions governing the elasticity of substitution between developing country suppliers seem, at first sight, conservative since the large supply price differentials—where the lowest are well under half those of the largest—suggest major scope for displacement in the medium term. Moreover, the assumption of binding quotas is, as we have seen, only patchily true, though increasingly so. The cost differentials, while ingeniously derived, do not, moreover, tally at all with experience or traders' perceptions of competitiveness (for example Malaysia is shown as having a significantly lower supply price than China, Pakistan, or Thailand—all countries which, unlike Malaysia, have no difficulty filling their quota allocations); the supply price concept expressed in a dollar numeraire can have little meaning for state controlled economies like Bulgaria, Poland, and Romania; and estimates of cost differences based on average figures can be wildly misleading for countries such as Brazil and Peru, where there have been large nominal and real exchange rate changes. The key issue is, however, not these specific quibbles, but whether we believe sufficiently in the model to accept the central conclusion that the trade creation gains to developing countries from liber-

Table 5-5 Import Shares of Developing Country Textile and Clothing Exporters - OECD Countries

| | | Textile | | | | | Clothing | | | | |
|-----------|--------------------|---------|------|------|------|------|----------|------|------|------|------|
| | | 1977 | 1981 | 1983 | 1985 | 1986 | 1977 | 1981 | 1983 | 1985 | 1986 |
| Norway | (1) NICs | 8.5 | 9.5 | 8.8 | 8.6 | 9.0 | 7.0 | 7.8 | 5.8 | 5.4 | 6.7 |
| | (2) Other non-OECD | 0.5 | 1.6 | 1.2 | 0.9 | 1.1 | 13.3 | 7.6 | 9.0 | 8.8 | 8.3 |
| | (3) All non-OECD | 9.0 | 11.1 | 10.0 | 9.5 | 10.1 | 20.3 | 15.4 | 14.8 | 14.2 | 15.0 |
| Australia | (1) NICs | 12.2 | 19.7 | 22.7 | 22.0 | 24.6 | 31.7 | 50.7 | 52.6 | 49.3 | 45.7 |
| | (2) Other non-OECD | 25.0 | 21.6 | 20.4 | 20.7 | 21.7 | 39.5 | 30.3 | 27.8 | 29.1 | 37.8 |
| | (3) All non-OECD | 37.2 | 41.3 | 43.1 | 42.7 | 46.3 | 71.2 | 81.0 | 80.4 | 78.4 | 83.5 |
| Japan | (1) NICs | 24.0 | 30.9 | 30.7 | 35.7 | 42.6 | 10.0 | 16.7 | 22.0 | 26.7 | 22.2 |
| | (2) Other non-OECD | 39.1 | 34.7 | 25.6 | 23.6 | 22.6 | 65.9 | 59.4 | 55.4 | 56.0 | 60.9 |
| | (3) All non-OECD | 63.1 | 65.6 | 56.3 | 59.3 | 65.2 | 75.9 | 76.1 | 77.4 | 82.7 | 83.1 |
| EC | (1) NICs | 39.6 | 39.2 | 39.2 | 39.5 | 41.5 | 40.8 | 42.6 | 43.8 | 45.0 | 49.6 |
| | (2) Other non-OECD | 8.3 | 7.1 | 6.8 | 6.5 | 7.7 | 32.8 | 36.2 | 32.5 | 28.8 | 31.3 |
| | (3) All non-OECD | 47.9 | 46.3 | 46.0 | 46.0 | 48.2 | 73.6 | 78.8 | 76.3 | 73.8 | 80.9 |
| US | (1) NICs | 31.4 | 37.3 | 32.3 | 31.6 | 31.7 | 23.4 | 20.2 | 30.4 | 32.3 | 35.8 |
| | (2) Other non-OECD | 13.7 | 16.3 | 19.3 | 17.9 | 18.3 | 59.9 | 60.6 | 58.9 | 52.6 | 49.3 |
| | (3) All non-OECD | 45.1 | 53.6 | 51.6 | 49.5 | 50.0 | 83.3 | 80.0 | 89.3 | 84.9 | 85.1 |

Source: Derived from OECD Working Papers No. 31 and 60.

alization (and the trade destruction losses from MFA protection) substantially exceed in importance the trade diversion effects.

Another approach entirely is to look at the historical experience of some *control cases*: countries which did not, for various reasons, adopt the MFA, and in particular the use of quota discrimination against developing countries, in general or in particular. In principle, these control cases should give us an indication of how trade flows might have developed (or might in future develop) if trade were generally to be liberalized (see Table 5-5).

a) *Japan* has hitherto had no formal restrictions on imports of textiles and clothing over and above the general difficulties facing all exporters in the Japanese market (though some informal non-MFA restrictions have been employed on exports from Pakistan, Korea and the Philippines (Asian Development Bank 1988, and Hamilton and Kim in this volume). This, together with the high level of direct overseas investment and subcontracting by Japanese trading houses and textile companies in Hong Kong, Korea, and Taiwan, and the much closer proximity of Asian low-cost rather than developed country producers, should suggest a much higher developing country share of textile and clothing imports than in other developed countries. This is not in fact the case; the proportion—just over three quarters for clothing—is virtually identical to the EC, less intra trade, though there is a higher proportion for textiles. The share of the main NICs in the imports from developing countries is virtually identical to that of OECD as a whole. The Japanese picture in these respects is no different from other developed countries—though its overall market penetration by imports is lower (for clothing not textiles).

b) The *Australian* system involves two major departures from the MFA, which Australia left in 1977 because it considered the MFA quota framework insufficiently protective. Australian quotas have been global rather than bilateral, covering both developed and developing countries (Ferry 1987). And, at the quota limit, there is a high tariff rather than a physical control. One would expect that the developing countries' share of imports would be higher than in the MFA countries; in fact the reverse is true, and for clothing there has actually been a declining share over the period since 1975. The Australian experience should also give some clues as to the relative competitiveness of the major NICs, which are more heavily restrained than other exporters in the MFA countries but not in Australia. The NICs have a much higher share of textile imports than in other developing countries, but not of clothing imports. At the margin, however, the *growth* of the share of the NICs in imports of both textiles and clothing is much higher than for any other major OECD country, which does give a pointer to the way trade diversion may have played a part in selectively controlled MFA countries.

c) *Norway* had a system of global rather than bilateral quotas between 1979 and 1985, but these did not apply to EEC, the United States and EFTA countries (the situation was complicated by the continuation of some bilateral agreements until 1981–82). While Norway is a very small market—such that small suppliers would be deterred by the fixed costs involved—the Norwegian experience should have given some indication of the relative competitiveness of major NICs and other developing countries. In fact, however, Norway appears to have a much lower share of developing countries' products in its textile and clothing imports than other OECD countries, and the share declined sharply in the global quota period. Relatively, at least, the NICs seem to have done better in maintaining market share.

These experiences are disparate and do not point to any very clear conclusions in terms how the relative market shares of different types of developing countries might evolve under a liberalized system. On balance, the NICs seem to do rather better than other developing countries under global quotas, though a sample of two countries is hardly conclusive. What is striking is that in all three countries which do not use the MFA to restrict imports, the level (and usually the growth) of market penetration by developing countries is inferior to that of the main MFA countries: the United States and the EC.

A Classification of Exporters

In a rough-and-ready way it is possible, from the different analyses above, and from some knowledge of the exporters, to classify exporters in terms of past behavior and future prospects.

The Middle-Income 'Protected' Exporters

There are some exporters for which the MFA does provide a protected "niche" which a fully competitive market might well eliminate or significantly reduce. Despite the relatively optimistic measures of supply-price competitiveness suggested by Trela and Whalley, *Malaysia*, and probably Singapore, are two Commonwealth examples. Both are net importers of textiles and their recent export growth has been mainly in garments. A recent study considers that "the MFA may be advantageous . . . bilateral agreements have enabled Malaysia to take full advantage of export opportunities in developed country markets which would otherwise have been monopolized by leading textile manufacturers" (*Textile Outlook International* 1988). The reasons are simple enough: "Wage rates have increased steeply over the last ten years . . . labour costs are about four times those of China, Indonesia and Sri Lanka . . .

the industry is also plagued by lack of trained personnel at all levels." At the same time, average productivity in terms of output per employee is estimated at less than half that in Hong Kong for clothing and barely half for textiles, though wage costs are no lower, with high labor turnover and lack of skills. None of these are irremediable barriers to export competitiveness and Malaysia, as well as having plans to automate where possible, is seen as having a reputation for "quality and consistency of supply." But the future expansion of exports is seen very much in terms of the flexibility which Malaysia has been able to negotiate with the United States and, as a member of ASEAN, in its bilateral quota arrangements with the EEC. This flexibility has permitted average annual 20 percent (nominal dollar) growth in the last six years.

Singapore is a more debatable case since, whereas wage costs are very high in relation to most other Asian producers, productivity is also high (automation—supported by a computer aided design/computer aided manufacture (CAD/CAM) center—is preceding apace) and there are specialized high-quality exporters (for instance, stone-wash jeans). Singapore also derives some value added from reexport and transshipment. Singapore's ability to expand exports by 40 percent in 1987 (20 percent in volume terms) and increase reexports by 50 percent suggests a stronger base than is provided merely by quota protection; but the extent of quota underutilization—despite an efficient quota distribution system—also points to the difficulties of competing in standardized items.

There are substantial numbers of middle-income countries for which some of the above elements apply: exports benefitting in part from more severe MFA restrictions on major competitors combined with the development of competitive niches for particular firms or products.

The Low-Income Garment Producers

An important category of exporters emerging in the 1980s, particularly in the garment area, is that of nontraditional but low-wage Asian economies: Bangladesh, Sri Lanka, China, Indonesia, Philippines and Thailand. India and Pakistan belong partly to this category, though export expansion started earlier and both have also, like China, been significant textile producers and exporters. In most of these cases, a key factor catalyzing export expansion was the opportunity presented by restraints on major NICs. Offshore investment by entrepreneurs from the NICs was also in many cases a key influence.

Spinanger (1987) has already documented the early story of how a combination of Bangladeshi entrepreneurship and traditional sewing skills, allied to Korean (Daewoo) marketing technology and investment, lifted garment exports from virtually nil in 1980–81 to 3 billion taka (\$100 million) in 1984–85, when they comprised 12 percent of the

country's exports and employed 140,000 people. The imposition of quotas by the United States, Canada and the EC then abruptly curtailed expansion, causing the closure of 500 out of 700 factories. In 1984, the country's share of clothing imports into the United States—which took 70 percent of the exports—was barely a third of 1 percent. Projections—as those of Trela and Whalley—suggest that Bangladesh would be one of the major beneficiaries of liberalization.

In practice, the damage to Bangladesh exports by quotas has been a good deal less severe than feared five years ago. After a painful hiatus, rapid growth has resumed such that garment exports are expected, on present trends, to account for almost 30 per cent of exports in the current financial year (Table 5-6).

Table 5-6 Total Exports Garments (billion taka)

| | Total Exports | Garments (billion taka) |
|---------|---------------|-------------------------|
| 1981-82 | 12.4 | 0.2 |
| 1982-83 | 18.0 | 0.3 |
| 1983-84 | 20.2 | 0.9 |
| 1984-85 | 26.2 | 3.7 |
| 1985-86 | 20.4 | 2.5 |
| 1987-88 | 38.1 | 8.2 |
| 1988-89 | 44.9 | 12.5 |

This was partly achieved by market diversification—but even in the main market, the United States, exports rose from 2.1 million pieces in 1983-84 to 50 million in 1987-88, helped by a tripling of previous quota limits plus product diversification. The EC also promised “significantly more favorable treatment” after the outcry that earlier quotas had aroused. Spinanger (1987), optimistically argued that “the country's entrepreneurs will learn, as those of Hong Kong, Korea and Taiwan learned, how to recover from protection. The obstacles can indeed prove to be Schumpeterian medicine for entrepreneurs.” This proved remarkably prescient.

If Bangladesh's export boom was triggered, in part at least, by the diversion of trade and sustained in spite of restrictions, *Sri Lanka* trod the same path about five years earlier. It now faces restrictions in 15 countries and in the main market—the United States, with two-thirds of its exports—33 quota categories were controlled in the latest agreement, despite the fact that Sri Lanka provides only 1.25 percent of U.S. imports of clothing and made-ups. Although exports are now roughly the same in value as those from Bangladesh, they are controlled much more closely. Despite this, an official view is that while “protectionism is the restriction of imports into developed countries . . . from another perspec-

tive, a segment of the market is reserved for countries like Sri Lanka and it is up to us to service this aggressively . . . As long as the United States does not impose a total square yard limit . . . our garment industry has the potential to develop much further" (*Textile Asia*, June 1988). And from "a leading exporter" ". . . at the bottom of the scale you are in direct competition with China, Bangladesh and Pakistan. We can't beat their cost as they are way cheap, and we shouldn't try to compete with them as our garments industry is miles ahead of theirs." (*Textile Asia*, July 1988). Thus, effort is being channeled into quality control and movement "up market" as well as into market diversification to find differentiated niches.

An even clearer example of protected exporting by a low-income developing country is that of the *Maldives*. Various foreign enterprises have established garment making units on the island of Gan, and within two years of commencing production in 1980, the factories were exporting \$3.3 million of goods, a third of all Maldives' exports of goods (the rest being fish products). By 1985 garment exports accounted for 48 percent of exports by value. Although the quantities involved are minuscule (less than 1 percent of those of a small producer like Sri Lanka), the Maldives has come under quota restraint in the United States, which has slowed but not stopped expansion.

In fact the Maldives industry is entirely a creation of the MFA and would not otherwise exist. It was sponsored by Hong Kong interests faced with quota restraint (the plants are state owned but working in collaboration with foreign interests). Value added is extremely low—in 1984 it was estimated at around 10 per cent of gross output—and, of that, a fair proportion consists of payments to foreign skilled workers and supervisory staff. Nonetheless, the residual value added, the net export earnings and the 1,500 jobs are of genuine benefit to a small state such as the Maldives. Even though the local content may deepen over a period of time, it is difficult to believe that the industry—with its extra transport costs and delivery times—would long survive genuine liberalization of the world textile trade.

The major Commonwealth low income exporter is *India*. That story is well told by Kumar and Khanna and does not need elaborate repetition. Several key points, however, do need emphasis. One is that India has achieved impressive growth in both textiles and clothing exports in recent years, mainly by improving its utilization of quotas. These quotas are now beginning seriously to bite across a wide range of products; thus India has little to gain and much to lose from perpetuation of the MFA. Like other exporters, Indian garment manufacturers are adjusting to quotas by upgrading, diversification and internationalization. But such adjustment is, in many respects, developmentally perverse for India—at least in respect of garments—by encouraging production with higher

import content (traditional Indian garments use domestic cotton fabrics only), reinforcing patterns of trade based on bilateral barter in nonconvertible currencies and stimulating overseas investment from India rather than inward investment. The same comments could be repeated almost exactly for China and Pakistan, and these three countries together represent the strongest economic (and political) force for opening up the MFA system.

Preferential Exporters

A different category from both of the above consists of those developing countries, both low and middle income, which have obtained total or partial exemptions from MFA controls through some form of preferential arrangement. Basically there are two often overlapping categories: preference area arrangements and offshore processing.

Preference area arrangements give tariff or quota preference over other developing country suppliers—albeit usually within limits and with safeguards. The main ones are the U.S. Caribbean Basin Initiative (CBI), the EC's ACP (Africa, Caribbean and Pacific) preferences under the Lomé Convention and the EC's Mediterranean arrangements, but there is also the Australian grouping for the Pacific (the Canadian 'Caribbean' program excludes textiles and clothing).

Offshore processing (OP) provisions which exempt from quotas (and, usually, tariffs too) those garments made with fabric from the importing countries. OP has been used to exempt Democratic Republic of Germany–Federal Republic of Germany trade from the MFA; sizable OP quantities are permitted over and above quotas from non-EC Southern Europe (from Malta, for example); and some MFA suppliers (Sri Lanka) have OP quotas. The CBI program now also allows garment producers to exceed normal quota levels to the United States if they use 100 percent U.S.-made and U.S.-cut fabric, up to a guaranteed access level (GAL), except on some sensitive items, as well as to receive duty concessions (the CBI quota preference is described as 807 after the relevant clause in U.S. trade legislation).

Jamaica benefits both from CBI and ACP tariff and quota preferences (Steele 1987). While Jamaica started exporting mainly fabrics in the 1970s and attracted quotas (which were never fully used), its entry into world garment markets occurred much more recently; total textile and clothing exports rose from \$16 million in 1983 to \$173 million in 1987, almost all to the United States. By 1986 Jamaica was the fourth largest exporter to the United States in the region (with 47.5 million square yards equivalent), ahead of six other Commonwealth Caribbean countries (Belize, 13.7 million; Barbados, 5.6; St. Kitts, 5.1; Antigua, 3.7; St. Lucia, 3.0; St.

Vincent and the Grenadines, 1.6). Sixty percent of Jamaica's exports to the United States were under the 807 program, but, unlike other countries in the region, Jamaica has also attracted cut, make and twin (CMT) producers, mainly Asian firms using Asian fabrics and seeking a way around the MFA quotas, and these CMT producers account for 40 percent of exports to the United States. The difference between the two from a Jamaican standpoint is that value added is only 10 to 20 percent of fob value for 807 operations and 35 to 40 percent for CMT producers. There has been little cost incurred in attracting the industry in either case, since investment comes from outside and the industry creates 20,000 jobs.

While 807 operations are designed to assist the U.S. (as well as the Jamaican) garment industries by preserving in the United States all but the most labor-intensive operations, mainly sewing, there are quotas on both the 807 and the CMT items. However, they are regarded as generous by the standards of other countries under the CBI program. In fact, several major 807 categories have fully utilized quotas and quota applications are described as "far exceeding what was available", and the Asian CMT exporters located in Jamaica have been able to open up new lines faster than the United States can close them. Paradoxically, the clumsiness of the 807 quota arrangements is such that the United States undermines its own objective of discouraging more highly integrated manufacture in the Caribbean and ensuring a large role for imports to the United States.

The economic attractiveness of continued Jamaican exports to the United States rests on labor-cost differentials. Jamaican manufacturing and delivery costs of 807 garments are well under half the U.S. costs and for some items, for example, brassieres, they are under a third of United States costs. But surveys show that Jamaican costs are far from being competitive with Far Eastern suppliers which have higher productivity and lower wage rates and also have access to lower-cost fabrics; in other words, if OP operations were allocated in a nonpreferential way they would be unlikely to gravitate to the Caribbean (though the very low costs of Haiti give it a relative advantage), while CMT operations are almost certainly less efficient than integrated garment making in Asia. One possible qualification is the importance of proximity. Close proximity reduces transport costs and also enables smaller inventories to be kept. Further, "there is evidence to suggest that as major United States' apparel distributors began to install the quick response information technology . . . they also begin to find that the long delivery periods and large stockholdings that were an inevitable consequence of dealing with the Big Three and other remote suppliers became less acceptable. Trade sources suggested these factors were becoming of importance by the end of 1987" (*Business International*, 1989, pp. 91, 127).

Jamaica is the only Caribbean country to have taken advantage of ACP preferences in textiles and clothing—though for very small amounts. Indeed, of the 66 ACP countries only one—Mauritius—has yet emerged as a significant exporter. The *Mauritius* experience is in itself an interesting, and revealing, one (Werbeloff 1987). Manufactured exports of any significance commenced with the introduction of an Export Processing Zone in 1970. Clothing exports predated the MFA and Mauritius was— notwithstanding the terms of the Lomé Convention—subject to “self-restraint” in the United Kingdom, Ireland and France as well as Sweden, and, in 1980, also in the United States. By 1982 the Mauritian industry employed 22,300 workers and exports were US\$89 million, a quarter of all exports. Despite the existence of quotas, exports then more than doubled to \$187 million in 1985 and employment rose to 66,000. Almost all clothing used a large proportion of imported yarn.

The factors that enabled Mauritius to expand its garment exports in this way are several. The first are the ACP preferences, in respect of duty (17 percent on garments) and freedom from quotas. These preferences are, however, heavily circumscribed. Rules of origin confine preferential access to goods made from imported yarn, which excludes all garments with the exception of knitted goods. Moreover, freedom from quotas excludes CMT goods and is subject to a safeguards clause (Article 139 of the Lomé Convention), which Mauritius has already encountered. A second is that the disadvantages of the Mauritius location in cost terms have been offset by concentration on high unit-value products. Since 1982 there has been a switch to woolen fiber (80 percent of total fiber use in 1986, from 45 percent in 1982) as a base for higher unit-value “Scottish” knitwear— mainly jerseys and pullovers. In addition, productivity is regarded as significantly higher than in some of the nearer locations such as the Caribbean. Over and above these factors, Mauritius has established itself over a long period as an attractive location for Chinese and Indian (and now South African) foreign investors, due in large measure to political stability and tax treatment. In short, Mauritius has—very successfully and gradually—developed a unique niche in the world garment trade which may be sustainable in a more liberal post-MFA environment, but is not easily replicated.

Although a small number of countries have, thus, succeeded in building up a rather small, precarious and qualified position as preferential suppliers, there has usually been a supplementary explanation (proximity, quality, politics). The existence of controls on other MFA suppliers and preferential access have not yet created adequate incentives to attract exporters into—among others—sub-Saharan Africa, where wage rates are low, but productivity is as well, and transport costs are high (Hamza 1989). It is possible that recent adjustment policies, involving large real devaluation in many cases, will change the relative cost

equation, but the only new sub-Saharan African country to emerge as a rapid-growth exporter within the last year or so is *Zimbabwe*, which is one of the highest wage economies in Africa and landlocked, but has succeeded in finding a niche for quality garments and fabrics (in the United States, not the EC; *Textile Asia*, November 1987).

The NICs

Despite the extensive controls governing its exports under the MFA, *Hong Kong's* share of world clothing exports in value terms were actually larger in 1987 than in 1980 (13.0 per cent against 11.9 percent—though there has been a slight decline if reexports are removed from the figures). It has also managed to increase its exports of textiles, both domestic and reexports, significantly faster than world trade—though it is still a net textile importer. These facts tell us something about both the extent to which Hong Kong exporters have learned to live with the MFA and their potential capacity to compete in a more liberal environment.

The basic factors that have been at work enabling Hong Kong (and other NICs) to maintain the momentum of export growth in the face of market access restrictions already have been referred to in discussing adjustment strategies for exporters. The first has been efficient quota administration to encourage both maximum utilization of quotas and the retention of rent by exporters to help (among other things) finance investment. A second has been upgrading in quality terms to maintain attractive products for fashion speciality chain stores and, related to that, the progression in value added from simple manufacturing operations, through greater control over material sourcing, to product development, through local design capability. A third has been internationalization of garment operations through offshore subcontracting and overseas investment in Macao, China, Mauritius and elsewhere. A fourth has been the increasing use of sophisticated equipment to raise productivity to counter both growing mechanization in industrial countries and lower wage costs in other developing countries. As can be seen from the estimates in Table 5-7, textile productivity has risen faster than in the United States, more than offsetting the relatively rapid growth of wages (which are still only a fifth of U.S. levels).

At the same time various factors are working to undermine this competitiveness. One is that even the widening labor cost advantage of the NICs in some of the more capital-intensive activities does not offset other factors in mill expenses—such as raw materials, selling and administrative costs, machinery depreciation—and, even on the above figures, Hong Kong costs can be shown to have risen from 72 percent of U.S. costs in 1967 to 91 percent in 1988. In the garment sector there is a similar

Table 5-7 Changes in the Cost of Production, Cost Elements, Unit Labor Cost

| | 1967 | 1988 | Ratio 88/67 |
|------------------------|-------|-------|-------------|
| Weaving mill—USA | | | |
| sq.m/operator hour | 77.1 | 127.2 | 1.65 |
| hourly labor cost | 2.58 | 9.49 | 3.68 |
| labor cost/sq.m | 0.034 | 0.075 | 2.23 |
| Weaving mill—Hong Kong | | | |
| sq.m/operator hour | 23.1 | 82.7 | 3.58 |
| hourly labor cost | 0.32 | 1.93 | 6.03 |
| labor cost/sq.m | 0.014 | 0.023 | 1.68 |
| ratio HK/USA | 0.41 | 0.31 | |

Source: Werner International. From *Textile Asia*, September 1988.

process of narrowing, but more important here is the influence of “quick response,” an emerging factor which is apparently already giving some advantage to producers within the main industrial countries or in processing areas—like the Caribbean and Mediterranean for the United States and EC—close to them. From a different direction is competition from very low-wage economies in Asia—China, India, and Bangladesh, in particular—whose garment producers are also making growing use of automated processes in conjunction with labor-intensive sewing, and paying greater attention to yarn and fabric quality control, design and speedy distribution. As far as Hong Kong itself is concerned, the issue of NICs versus the new low-cost suppliers is in any event one that is of growing irrelevance, since its own economy, like its political future, is increasingly interwoven with that of China, and the combination could have elements of strength from both. More generally it is not at all clear whether the middle-income NICs or the low-income garment exporters would best adapt to a genuinely liberalized environment; that is due in no small measure to the way the distortions introduced by the MFA have blurred true cost differentials.

Some Policy Implications

The case for scrapping managed trade under the MFA and moving to the type of (more or less) liberal trade under GATT that obtains in most other industrial sectors is powerful on broad grounds of economic efficiency and economic development. The practical problems of negotiating this change and transitional arrangements are, however, very large and should be guided by several factors which this paper has highlighted.

The *first* is that, in practice, it has been possible for exporters to achieve substantial rates of growth, often well in excess of what might have been predicted *ex ante*. Entrepreneurs have been a good deal more ingenious than politicians and bureaucrats. This has several implications of some importance. Industrial countries' industries have been forced to adjust, and to adjust not by defensive, capital-deepening methods (though there has been some of that, much of it successful, particularly in textiles) but by exiting from competing lines. Powerful, defensive industrial pressure groups like the U.K. and French textile and clothing industries, based on an alliance of upstream man-made fibers firms and downstream processors, have given way to more fractured groupings, with many textile and garment companies now deriving profit from international specialization. The most powerful pressure group in the EC for retaining the MFA is no longer the traditional textile industry but the protected exporters of Italy and Portugal. Further, the inability of the MFA controls to have the draconian effects predicted and claimed can hardly be put down to incompetence. In fact many policymakers in industrial countries favor liberalization but prefer to do it by stealth and benign neglect. All of this suggests that it is perhaps sensible—as well tactically more adroit—for developing countries to be modest in their predictions of how much extra exports the abolition of the MFA would achieve. It also suggests the vital importance of nurturing and strengthening those elements of flexibility which remain in the MFA—and of devoting negotiating energy to fighting restrictions on flexibility rather than issues of principle.

A *second* point is that there are strong reasons for doubting those analyses which imply that all, or almost all, developing countries would gain in terms of export growth from general liberalization. Several categories of exporters—some smaller, middle-income countries; countries that have attracted quota-hopping exporters; some of the small states that have acquired a foothold in the garment trade through offshore processing and preference arrangements—are being artificially sustained by the MFA, and they are large in number if not in importance in overall trade. Even some exporting countries that are well established and have relatively low labor costs, like Sri Lanka, seem not wholly ill at ease with the present arrangements. Of course it would be facile to pick “winners” and “losers” among exporting countries—which will depend on changing economic circumstances such as exchange rates. Moreover, countries have a supply curve representing firms at often radically different levels of competitiveness. Nonetheless both recent trends in quota utilization and *a priori* considerations suggest that major low-wage exporters with a strong indigenous base in operating skills, cheap fabric and garment design—China, India and Pakistan, particularly—might well increase their market share very substantially at the expense of other exporters. In one sense this is of advantage for negoti-

ating with developed countries, since these large developing countries have considerable bargaining power—but to be effective they will also have to accommodate the interests of small suppliers—by, for example, exempting such small suppliers from the MFA controls in advance of general liberalization.

Some economists have argued for a radical change from a quantity-based to a tariff-based (or tariff-quota-based) system of protection on grounds of transparency and market efficiency (Sampson and Takacs, in chapter 12 of this volume). While it is difficult to fault the tariff quota idea on grounds of principle, it is not obviously in the interests of developing countries to use up negotiating energy to secure an objective—transparency—which is a great deal less important to them than improved market access. There are also practical problems; the determination of tariff equivalents of current quotas would be enormously difficult. Much smaller but similar exercises in the Tokyo Round proved exceptionally time consuming and unsatisfactory. If this author is correct in arguing that the quota system may be leakier than it appears, there is a danger of tariffs increasing rather than decreasing the level of protection (or retarding the pace of liberalization relative to a relaxation of quota flexibility and growth rates). The Australian history of tariff and tariff quota protection is not wholly encouraging in this respect, and was originally embarked upon in the 1970s as a way of tightening protection, not reducing it.

In this context, the pragmatic, gradual approach to quota liberalization through a transitional period as set out by Raffaelli (chapter 12 in this volume) and as pursued by the textile exporters in the Uruguay Round so far has much to commend it. The emphasis is on reducing the number of countries and products affected by quotas, increasing growth rates so that quotas operate digressively, banning new quotas, and removing those elements in the present MFA that inhibit flexibility. These issues are arguably more important than the question of how long or whether the MFA remains as a formal GATT arrangement.

Figure 5-1 Design of Export Quota Systems

| Allocation Criteria | Bangladesh | Hong Kong | India |
|------------------------|---|---|---|
| (a) Past Performance | 40 % of quota (half allocated three months prior to year) Manufacturer-exporters only | All allocated on performance | 'Closed' quota based on past performance. 75% in recent years (and small share for 'organized' sector and public sector) |
| (b) Other | 60% "free quota" first come-first served "reserved quota" (nil in first year—1985) | | Open quota—26% allocated on "first come, first served" basis. Daily allocation based on 'cut off' price where demand exceeds supply |
| Newcomers | Via "free quota" | Via secondary market | Via open quota |
| Penalties for Underuse | Adjustment of performance quota | As below | Reduce closed quota allocation |
| Transferability | None | Freely transferable. Performance quota holders allowed to sell up to 50% of quota without losing share of entitlement | Can sell quotas only once |
| Other Features | | | Floor export prices for both open and closed quotas for each category. Small quota for nonquota market exports. |

Figure 5-1 (continued)

| Allocation Criteria | Indonesia | Jamaica | Malaysia |
|------------------------|---|---|--|
| (a) Past Performance | 25% in past performance | Performance allocations but weighted for high added; market diversification; location and use of US equipment | All on performance basis. Growth factor allocated to reflect unit values; diversification, evidence of orders, inter alia |
| (b) Other | 15% to newcomers; other 60% to 'established manufacturers', reflecting capacity, size & minimum quota | | |
| Newcomers | As above | | Not encouraged |
| Penalties for Underuse | Quotas have to be used by end April or surrendered | Adjustment of performance allocation | Reduced quota of less than 80% used in previous year and if utilization is falling. Have to surrender unused quota by end-July |
| Transferability | None | | None |
| Other Features | | Importance of meeting 'rules of origin' criteria under Article 807 | |

Figure 5-1 (continued)

| Allocation Criteria | Philippines | Singapore | Thailand |
|------------------------|--|---|---|
| (a) Past Performance | Allocation by past performance | (1988 system) 75% | (Garments). 'Basic' quota on past performance |
| (b) Other | | 25% auctioned (all bidders pay lowest offered) | Additional amounts, monthly from 'central pool' (20% to international trading companies; rest on basis of value added, unit prices) |
| Newcomers | Only via subcontracting | Via auction | Via central pool. But criteria favor established |
| Penalties for Underuse | Penalties based on degree of utilization (loss of quota or fine) | Performance quota reduced | Penalty for fulfilling under 90% of quota in restricted access to central pool |
| Transferability | Allowed only under supervised scheme | Allowed but has to be registered | Not allowed except by 'international trading companies' to companies exporting through them |
| Other Features | | Levy of 0.5% of average export price on performance quotas. | |

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Part II

Established and Emerging Exporters' Perspectives

6

China and the Multi-Fibre Arrangement

Kym Anderson

The dramatic reforms to China's economic policies since the late 1970s, particularly the opening up of China to international trade and investment, have stimulated very rapid growth in this populous economy. During the past decade China's real GDP per capita and volume of exports have grown at more than 6 and 10 percent per year, respectively, treble the rates for other developing countries and for the world as a whole and close to the remarkable performance of East Asia's more advanced developing economies. This growth has been accompanied by rapid structural transformation of the Chinese economy toward producing more of the goods in which China has a strong comparative advantage, notably textiles and clothing. It has also meant that China's importance in world markets for textiles and clothing has been expanding.

This paper addresses three questions. The first is: what is China's interest in the liberalization of international trade in textiles and clothing? This requires examining the extent to which textiles and clothing have become important in China's exports despite the limitations to industrial country markets imposed by the Multi-Fibre Arrangement (MFA). The second question has to do with the importance to the rest of the world of China's current exports of textiles and clothing. And the third and closely related question is: what would be the implications for China and the rest of the world if China were to be given greater access to industrial country markets for textiles and clothing?

The introduction first draws on standard trade and development theory to argue that we should expect the rapidly growing, densely populated Chinese economy to be gradually losing comparative advan-

tage in primary products to light manufactures such as textiles and clothing. Evidence is then presented to show that this is precisely what has been happening, in much the same way as occurred earlier in Japan and then in East Asia's middle-income economies. An important corollary to China's strengthening comparative advantage in textiles and clothing that is also demonstrated in the first section is the long-term decline in China's net exports of natural fibers.

The second section shows that, as a result of its rapid industrial growth, China has become a significant contributor to world exports of textiles and clothing during the 1980s. It also shows the extent to which China is becoming more important as an importer of fibers, and is contributing to the international relocation of fiber, textile and clothing activity to the northeast Asian region.

The final section discusses the future prospects and policy implications of these developments both for China and for the rest of the world. It argues that, if the Multi-Fibre Arrangement were to be liberalized, China would be likely to play an even more significant role in fiber, textile and clothing trade through the next decade or two and that while this would cause structural changes in these industries in other East Asian economies, the latter—and the rest of the world—would nonetheless gain from China's expansion.

China's Comparative Advantage in Textiles, Clothing and Fibers¹

Standard trade and development theory suggests that a poor country opening up to international trade will tend to specialize in the export of primary products, though less so the more densely populated the country.² If its domestic incomes grow more rapidly than the rest of the world's, its export specialization will gradually switch away from primary products (in raw or lightly processed form) to manufactures. The manufactured goods initially exported will be more labor intensive, the more resource-poor or densely populated the country. Since many (though by no means all) textile and clothing production activities tend to be intensive in the use of unskilled labor, they would be among the items initially exported by a newly industrializing, densely populated country. And as the demands for textile raw materials by that country's expanding textile industry grow, so the country's net exports of natural fiber would diminish, or net imports of natural fiber would increase, other things being equal.³

Global Cross-sectional Evidence

This theory has strong empirical support. The theory suggests the share of primary products in total exports (*PRI*) would be negatively related to both per capita income (*Y*, a crude index of the endowment of capital per worker) and population density (*PD*, a crude index of the endowment of natural resources per worker), and this is what is obtained in estimating ordinary least squares (OLS) regression equations from cross-sectional data.⁴ For example, using the data available for the year 1983 from the World Bank (1985, 1986) for 69 countries with populations exceeding one million, one obtains the following regression result (*t*-values in parentheses):

$$PRI = 180.4 - 9.75 \ln Y - 11.52 \ln PD, \bar{R}^2 = .54$$

(5.68) (7.15)

The theory suggests also that the share of labor-intensive goods such as textiles and clothing in total exports of manufactures (*TEX*) would fall as income per capita increases, and would tend to be higher the greater the population density. Again this is what is revealed by estimating an OLS regression equation from cross-sectional data. For example, using the 1986 data available from the World Bank (1988) for 63 countries with populations exceeding one million, the following regression equation is obtained (again with *t*-values in parentheses):

$$TEX = 25.6 - 7.77 \ln Y - .523 (\ln Y)^2 + .163 PD, \bar{R}^2 = .52$$

(5.6) (5.7) (6.3)

These regression equations are clearly consistent with the theory of changing comparative advantage summarized above.

Time-series Evidence from East Asia

Japan and the newly industrialized economies of Hong Kong, the Republic of Korea and Taiwan are, like China, among the world's most densely-populated countries. They also have had the enviable reputation for a long time of enjoying extremely rapid rates of economic growth, as has China since 1978. Thus the above theory suggests that all five of these economies should lose their comparative advantage in primary products at a relatively early stage of their economic development and have an initial strengthening of comparative advantage in unskilled-labor-intensive manufactured products, such as finished textiles and clothing, which will eventually diminish.

This is indeed what the historical record in Table 6-1 shows. Japan's share of primary products in total exports was above 70 percent in the first decade of the Meiji Restoration last century, but it has steadily fallen since then and is now close to zero. The newly industrialized economies (NICs) of the Republic of Korea and Taiwan also exported mostly primary products prior to their industrial takeoff, in their case in the early 1960s, but in just two decades their primary export shares fell to less than 10 percent. And the same pattern has occurred in China: the share of China's exports due to primary products was more than two thirds in the mid-1950s, around one-half during the Cultural Revolution decade to 1976, and close to one-third by 1987.

It is also clear from Table 6-1 that, consistent with the above theory, the shares of textiles and clothing in East Asia's total exports first increased and then declined as these economies grew and, soon after their industrial takeoffs, the shares of textiles and clothing in their *manufacturing* exports began to fall.⁵ For the less-advanced Chinese economy the importance of textiles and clothing in exports has grown rapidly since the reforms began, and is continuing to do so. Indeed by 1987 textiles and clothing were more important than primary products in China's total exports and contributed more than half of the country's manufactured exports.

Of more importance from the point of view of this paper is the change in comparative advantage in (rather than just export shares of) textiles and clothing. One indication of this would be revealed, if there were no distortions, by the share of these goods in a particular country's total exports relative to the importance of those goods in world trade (Balassa 1965). This index of export specialization is reported in the final column of Table 6-1. What is clear from those data is that even though the share of textiles and clothing in manufactured exports has been falling, those goods' share of total exports from industrial Asian economies, relative to the global export share, kept rising for some time after each economy's industrial takeoff—despite increases in protection in advanced industrial economies aimed at reducing their imports of these goods. This index peaked at 5.5 in the mid-1950s for Japan and at between 5 and 9 in the 1970s for the newly industrialized East Asian economies, in each case having risen from less than half that value. That is, textiles and clothing were 5 to 9 times as important in East Asia's exports as in world exports at those peak times. For China this index rose from 2 in the 1950s to 4 in the early 1970s and to 6.5 by 1987. Whether it will rise much further for China depends heavily, as discussed below, on policy choices both in China and in the industrial market economies which are the major purchasers of China's exports.

The gradual change in China's comparative advantage toward textiles and clothing and away from primary products has manifest itself clearly

Table 6-1 Importance of Primary Products and Textiles and Clothing in Exports from East Asia, 1874 to 1987^a
(Percent)

| | Primary products' share of total exports | Textiles and clothing's share of: | | Index of trade specialization in textiles and clothing ^b |
|-----------------------|--|-----------------------------------|----------------------|---|
| | | total exports | manufactured exports | |
| Japan | | | | |
| 1874-83 | 82 | 4 | 25 | n.a. |
| 1882-91 | 75 | 9 | 35 | n.a. |
| 1892-01 | 54 | 23 | 52 | 1.5 |
| 1902-11 | 45 | 28 | 51 | n.a. |
| 1912-21 | 34 | 34 | 51 | 2.6 |
| 1922-31 | 34 | 35 | 53 | 2.9 |
| 1930-39 | 20 | 35 | 44 | 4.1 |
| 1954-56 | 13 | 35 | 40 | 5.5 |
| 1964-66 | 8 | 17 | 19 | 2.7 |
| 1971-73 | 4 | 10 | 9 | 1.7 |
| 1976-78 | 3 | 5 | 5 | 1.0 |
| 1982-84 | 2 | 4 | 4 | 0.7 |
| 1985-86 | 2 | 3 | 3 | 0.5 |
| Hong Kong | | | | |
| 1954-56 | 25 | 36 | 48 | 5.4 |
| 1964-66 | 13 | 36 | 51 | 7.0 |
| 1971-73 | 6 | 47 | 50 | 7.6 |
| 1976-78 | 6 | 46 | 49 | 9.2 |
| 1982-84 | 7 | 40 | 42 | 7.2 |
| 1985-86 | 8 | 41 | 42 | 6.9 |
| Korea, Rep. of | | | | |
| 1954-56 | 94 | n.a. | n.a. | n.a. |
| 1964-66 | 41 | 27 | 46 | 4.3 |
| 1971-73 | 16 | 39 | 46 | 6.3 |
| 1976-78 | 12 | 33 | 38 | 6.6 |
| 1982-84 | 8 | 26 | 28 | 4.8 |
| 1985-86 | 9 | 24 | 26 | 4.1 |
| Taiwan | | | | |
| 1954-56 | 90 | n.a. | n.a. | n.a. |
| 1964-66 | 55 | 14 | 32 | 2.2 |
| 1971-73 | 18 | 30 | 36 | 4.8 |
| 1976-78 | 14 | 25 | 29 | 5.0 |
| 1982-84 | 10 | 22 | 24 | 4.1 |
| 1985-86 | 9 | 19 | 21 | 3.3 |
| China | | | | |
| 1955-57 | 70 | 14 | 47 | 2.1 |
| 1965-69 | 56 | 20 | 46 | 3.3 |
| 1975-79 | 54 | 21 | 46 | 3.9 |
| 1978-80 | 50 | 23 | 46 | 4.6 |
| 1981-83 | 49 | 25 | 49 | 5.0 |
| 1984-86 | 46 | 29 | 54 | 5.1 |
| 1987 | 34 | 36 | 55 | 6.5 |

a. Primary products cover SITC sections 0 to 4 plus division 68 (non-ferrous metals); textiles and clothing cover SITC divisions 65 and 84.

b. The index of trade specialization is defined as the share of textiles and clothing in total exports of a country relative to the shares of that product group in world exports, following Balassa (1965). The four pre-1950 values for Japan are calculated using world trade data for 1899, 1913, 1929 and 1937, from Maizels (1963).

Source: Anderson (1989, Tables 2.2, 2.3, 3.7 and 3.8).

in China's trade in natural fibers. The country's earlier comparative advantage in primary products was due in no small part to fiber exports. In the late nineteenth century, for example, net exports of fibers (particularly silk) accounted for close to one-third of China's total export earnings. Even in the first third of this century fibers contributed around one-quarter of all exports, but since the 1950s China has been mostly a net importer of fibers. During the 1960s its average self-sufficiency rates were 99 percent for wool and 95 percent for cotton, but by 1985–86 those rates had fallen to 53 percent for wool and 88 percent for cotton (Anderson 1989, Table 3.11). The reason for the decline was not only the shift in productive competitiveness away from agriculture but also the rapid growth in domestic demand for fibers by China's textile and clothing industries. That derived demand for fibers is the result of both an expanding domestic market for finished textile products, as incomes rise and clothing conformity relaxes in China, and an expanding export market as China's international competitiveness in labor-intensive manufactures strengthens.

China, Other East Asian Countries and the Rest of the World

How are these changes in comparative advantage affecting the international location of production and international trade in textiles and clothing? Textile and clothing output has grown much more rapidly in East Asia than it has in the rest of the world. It grew especially rapidly in Japan in the 1950s and 1960s, in Korea and Taiwan in the 1960s and 1970s, and in China since its opening up in 1978 (Table 6–2). Notice, however, that these industries declined in Japan (and other industrial countries) from the early 1970s as comparative advantage there moved toward more capital-intensive products and away from labor-intensive manufactures because of competition from newly industrializing economies.

This development is also reflected in the data in Table 6–2 on export growth rates, with Japan's textile and clothing export growth slowing down below the world and industrial country averages since the 1960s and making way for burgeoning exports from East Asia's developing economies.

As a consequence of these high rates of growth of production and exports, the share of East Asia in world exports of textiles and clothing has grown dramatically. Notwithstanding the decline in Japan's share, East Asia now accounts for around one-third of that trade, almost double the share of three decades ago and close to the combined share of Western Europe and North America (Figure 6–1). This has occurred

Table 6-2 Growth in Production and Exports of Textiles and Clothing in East Asia and the Rest of the World, 1954 to 1984
(Percent per year)

| | Real value added ^a | | | Nominal (US\$) value of exports ^b | | |
|--|-------------------------------|---------------------|---------------------|--|---------------------|---------------------|
| | 1954-56 to 64-66 | 1964-66 to 71-73 | 1971-73 to 81-83 | 1954-56 to 64-66 | 1964-66 to 71-73 | 1971-73 to 82-84 |
| WORLD | 3.7 | 4.1 | 1.5 | 7.5 | 13.9 | 11.1 |
| Japan | 9.8 | 7.0 | -0.2 | 7.4 | 9.1 | 7.5 |
| NICs ^c | 9.1 | 26.2 | 14.3 | 9.5 | 32.8 | 16.9 |
| China | n.a. | n.a. | 15.0 ^d | 8.0 | 10.8 | 21.5 |
| ASEAN | n.a. | n.a. | n.a. | 8.1 | 21.5 | 20.1 |
| Other developing economies ^e | 4.7 ^d | 4.3 ^d | 3.4 | 7.6 | 6.4 | 13.5 |
| Other industrial market economies ^e | 3.7 | 2.4 | -0.3 | 7.2 | 8.4 | 8.8 |

a. The footwear and leather industry is included in world value added. The final value added column refers to 1973-80 for Taiwan and 1977-83 for China.

b. Imports by the rest of the world are used to obtain proxy export data for China from 1964 and for Taiwan from 1982.

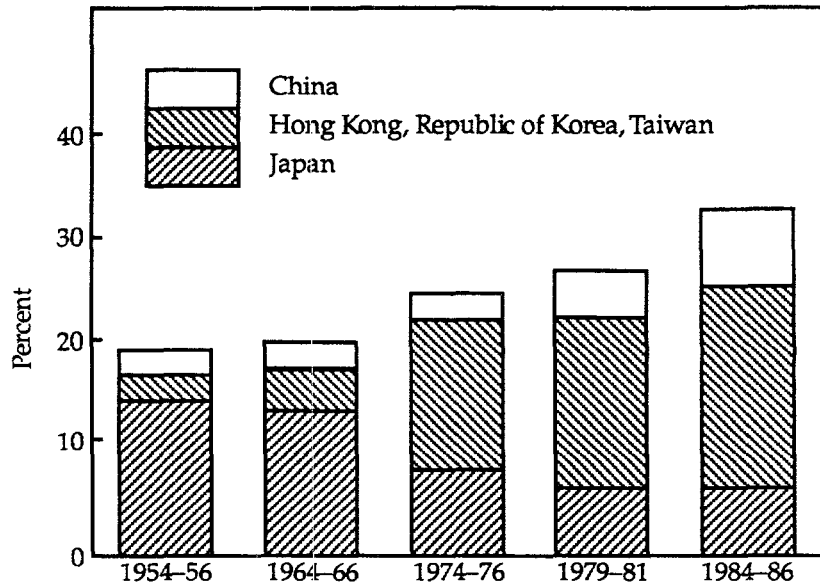
c. The newly industrialized Northeast Asian economies of Hong Kong, Republic of Korea and Taiwan; Hong Kong is excluded from the first two columns because of lack of data.

d. Textiles only, because of unavailability of clothing data.

e. Includes the above East Asian countries in the case of value added data.

Source: Anderson and Park (1989).

Figure 6.1 East Asian Economies' Shares of World Exports of Textiles and Clothing, 1954 to 1986



Note: Textiles and clothing cover SITC divisions 65 and 84. East Europe is excluded from the world total.

Source: Anderson (1989).

despite the fact that within the textile industry grouping there are some industries which, through technological change, have become extremely capital-intensive and thereby expanded in some of the advanced industrial countries (Yamazawa 1983).

The large jump in China's share since 1978 may well slow the growth in the share of the three newly industrialized East Asian economies during the next decade or so, as happened for Japan from the mid-1960s—although the new capital-intensive technologies being developed by textile firms in advanced industrial countries will no doubt be adopted by Korean and Taiwanese firms, which will help maintain their market share (see the next chapter on Korea). But even if a slowdown of the growth of the Asian NICs' share does occur, it is probable, given the likelihood of China's strengthening comparative advantage in labor-intensive manufactures and assuming it has a continuing rapid growth in total exports, that East Asia's total share of world exports of textiles and clothing will continue to expand into the 1990s.

Southeast Asia's share may also keep growing, but it is now much less significant than China's share of world trade in these products. Indeed, China may well prove too strong a competitor for the higher-wage ASEAN countries in the most labor-intensive segments of these markets, so ASEAN's performance will depend very much on wage pressures in Indonesia and Thailand and on reducing political uncertainties in the Philippines. (Garnaut and Anderson 1980; Tyers, Phillips and Findlay 1987).

As can be seen from Table 6-3, China has made dramatic strides (albeit from a low base) in penetrating industrial country markets for textiles, clothing and other light manufactures, more than trebling its share since the mid-1970s. The extent of import penetration differed substantially between major industrial countries prior to the opening up of China from 1978, but by 1986 those market shares were not too dissimilar, ranging from 1.2 percent in the European Community to 2.4 percent in Australia (Table 6-4). Dramatic though these sales from China have been, the levels of those imports from China are still small, both absolutely and relative to those from Asia's newly industrializing economies and from other developing economies, a point to which we return in the final section.

In summary, just as rapid economic growth first in Japan and then the more recently industrialized economies of East Asia, led to a gradual relocation of world textile and clothing activity away from Europe, so China's growth is beginning—and, as argued in the next section, is likely to continue—to add to that tendency for relocation in East Asia. Thus suppliers of textiles and clothing in higher-income countries can expect continuing increases in competition from East Asia as China's industrialization proceeds. In addition, the more advanced economies *within* East (and Southeast) Asia will have to adapt as China's competitiveness in this area strengthens.

A corollary to the increasing importance of East Asia in world production of textiles and clothing and the region's declining comparative advantage in primary products is the growth in the region's share of world imports of natural fibers. Japan's share of global imports of natural fibers has declined somewhat since the early 1970s, but this has been more than compensated for by the steady growth in natural fiber imports by the newly industrialized economies of East Asia since the early 1960s and by China since the late 1970s (Figure 6-2).

The reason for faster growth in the newly industrialized economies' share of world exports of textiles and clothing than in their share of world imports of natural fibers has to do with the changing fiber composition of their textile industries. Prior to the mid-1960s, Korean and Taiwanese textile firms were using cotton almost exclusively. However, the imposition in the early 1960s of the Long-term Arrangement limiting

Table 6-3 Import Penetration by China and Other Countries into Industrial-Country Markets for Manufactures^a, 1970 to 1986
(Percent)

| | Share of industrial-country domestic sales supplied by imports from: | | | | |
|---|---|--|----------------------------------|--------------------------------|------------------|
| | China | Hong Kong, Republic of Korea, Taiwan | Other developing countries | All developing countries | All countries |
| All manufactures^b | | | | | |
| 1970-7 | 0.0 | 0.3 | 1.2 | 1.5 | 12.4 |
| 1974-77 | 0.1 | 0.5 | 1.5 | 2.1 | 15.1 |
| 1978-81 | 0.1 | 0.8 | 1.7 | 2.6 | 17.0 |
| 1982-85 | 0.2 | 1.0 | 1.9 | 3.1 | 17.7 |
| 1986 | 0.2 | 1.1 | 1.6 | 2.9 | 17.6 |
| Textiles | | | | | |
| 1970-73 | 0.3 | 1.7 | 1.6 | 3.6 | 13.8 |
| 1974-77 | 0.4 | 3.1 | 2.3 | 5.8 | 18.3 |
| 1978-81 | 0.7 | 4.2 | 3.2 | 8.1 | 22.6 |
| 1982-85 | 1.2 | 5.4 | 3.8 | 10.4 | 24.1 |
| 1986 | 1.6 | 5.6 | 4.3 | 11.5 | 26.8 |
| Other light manufactures^d | | | | | |
| 1970-73 | 0.2 | 2.4 | 1.9 | 4.5 | 20.4 |
| 1974-77 | 0.3 | 2.8 | 2.9 | 6.0 | 25.2 |
| 1978-81 | 0.5 | 4.1 | 3.9 | 8.5 | 34.1 |
| 1982-85 | 0.7 | 5.4 | 4.6 | 10.7 | 30.7 |
| 1986 | 0.9 | 5.5 | 5.0 | 11.4 | 30.7 |

a. Imports from the countries shown as a percentage of apparent consumption in all industrial market economies. Intra-EC trade is excluded.

b. International Standard Industrial Classification group 3.

c. International Standard Industrial Classification division 32.

d. International Standard Industrial Classification division 39.

Source: International Economic Data Bank, *Market Penetration Tapes*, Australian National University, Canberra, 1989, based on data compiled by the OECD Secretariat (see Brodin and Blades (1986)).

international trade in cotton textiles encouraged these firms to switch to synthetic (man-made) fibers. They therefore changed from using much less synthetic fiber than the rest of the world's producers around 1960 to using much more than the world average by the 1970s (Table 6-5). As in the Republic of Korea and Taiwan in the early 1960s, the textile industry in China has been very strongly cotton-based until recently, but Table 6-5 shows there are now signs of decline in the importance of cotton as China's use of synthetic fibers increases also.

Table 6-4 Import Penetration by China into Various Industrial-Country Markets for Labour-Intensive Manufactures^a, 1970 to 1986
(Percent)

| | All industrial market economies | European Economic Community | European Free Trade Association | Japan | United States | Canada | Australia |
|---|---------------------------------|-----------------------------|---------------------------------|-------|---------------|--------|-----------|
| Textiles clothing and footwear^b | | | | | | | |
| 1970-73 | 0.3 | 0.2 | 0.4 | 1.0 | 0.0 | 0.5 | 1.2 |
| 1974-77 | 0.4 | 0.4 | 0.5 | 0.9 | 0.1 | 0.6 | 1.4 |
| 1978-81 | 0.7 | 0.6 | 0.8 | 1.3 | 0.4 | 0.8 | 1.9 |
| 1982-85 | 1.2 | 1.0 | 1.2 | 1.9 | 1.0 | 1.2 | 2.3 |
| 1986 | 1.6 | 1.2 | 1.5 | 1.8 | 1.7 | 1.6 | 2.4 |
| Other light manufactures^c | | | | | | | |
| 1970-73 | 0.2 | 0.3 | 0.3 | 0.3 | 0.0 | 0.1 | 0.6 |
| 1974-77 | 0.3 | 0.6 | 0.6 | 0.4 | 0.1 | 0.1 | 0.6 |
| 1978-81 | 0.5 | 0.9 | 1.0 | 0.4 | 0.3 | 0.1 | 1.0 |
| 1982-85 | 0.7 | 1.2 | 1.4 | 0.5 | 0.7 | 0.2 | 1.5 |
| 1986 | 0.9 | 1.2 | 1.8 | 0.5 | 1.1 | 0.5 | 2.1 |

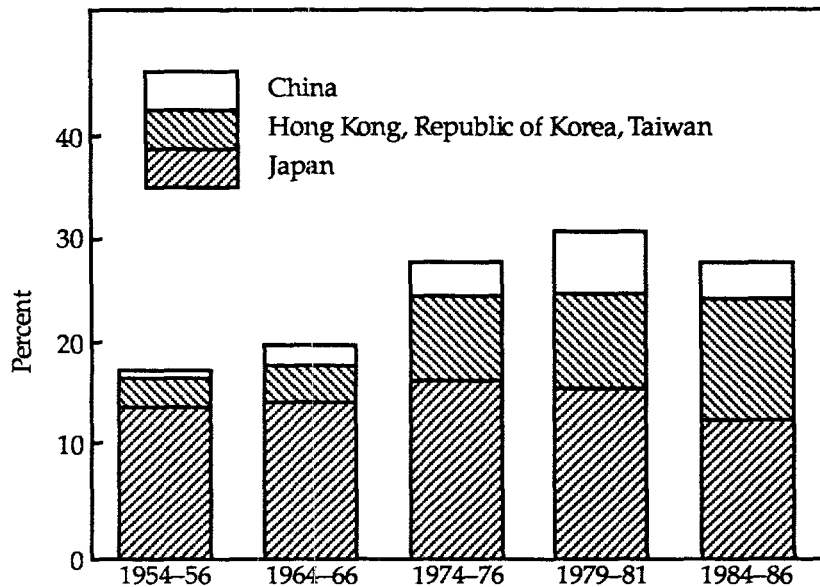
a. Imports from China as a percentage of apparent consumption of the industrial country(-ies), where apparent consumption is production plus imports minus exports. Intra-EC trade is excluded.

b. International Standard Industrial Classification division 32.

c. International Standard Industrial Classification division 39.

Source: International Economic Data Bank, *Market Penetration Tapes*, Australian National University, Canberra, 1989, based on data compiled by the OECD Secretariat (see Brodin and Blades 1986).

Figure 6.2 East Asian Economies' Shares of World Imports of Natural Fibers, 1954 to 1986



Note: Natural fibers cover SITC division 26 excluding 266. East Europe is excluded from the world total.

Source: Anderson (1989).

Just as the expansion in China's production of finished textiles and clothing is stimulating its domestic demand for natural fibers, so too is it stimulating a greater demand for synthetic fibers. The question arises as to whether that growing demand for man-made fibers will be met by Chinese or foreign firms.

Since the production of synthetic fibers tends to be much more capital-intensive than yarn and fabric production and, which is, in turn, more capital intensive than production of finished textiles and clothing, one would expect China to import those fibers at this early stage of its economic development rather than produce them domestically.⁶ This is in fact what the newly industrialized economies did in the 1960s and early 1970s: they imported them mostly from Japan, so that while Japan lost out in international markets for labor-intensive finished textiles and clothing (and at a later stage for synthetic yarns and fabrics) it gained market share in capital-intensive synthetic fibres. Similarly, the East

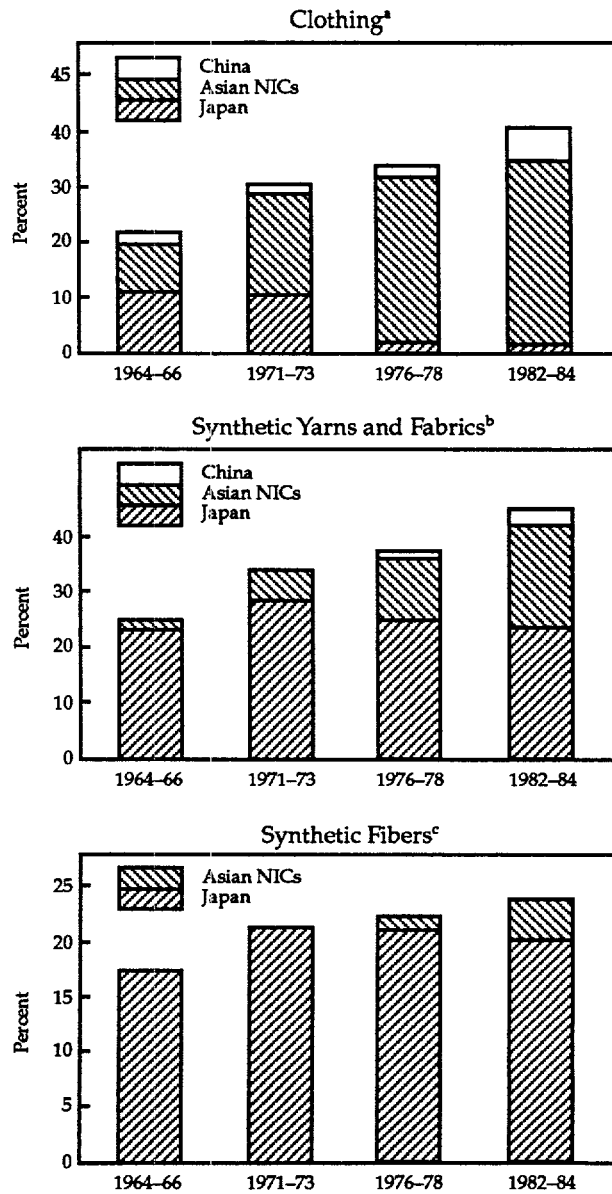
Table 6-5 Fiber Composition of Textile Production in East Asia, 1959 to 1983
(Percent)

| | Synthetic | Cotton | Wool | Other Natural | Total |
|--------------------------|-----------|--------|------|---------------|-------|
| World | | | | | |
| 1959-61 | 22 | 68 | 10 | 0 | 100 |
| 1969-71 | 38 | 55 | 7 | 0 | 100 |
| 1981-83 | 51 | 45 | 4 | 0 | 100 |
| Japan | | | | | |
| 1959-61 | 19 | 58 | 14 | 9 | 100 |
| 1969-71 | 41 | 37 | 13 | 9 | 100 |
| 1981-83 | 54 | 35 | 9 | 2 | 100 |
| Republic of Korea | | | | | |
| 1959-61 | 2 | 92 | 5 | 1 | 100 |
| 1969-71 | 42 | 54 | 3 | 1 | 100 |
| 1981-83 | 70 | 26 | 4 | 0 | 100 |
| Taiwan | | | | | |
| 1959-61 | 6 | 90 | 3 | 1 | 100 |
| 1969-71 | 27 | 70 | 3 | 0 | 100 |
| 1981-83 | 78 | 21 | 1 | 0 | 100 |
| China | | | | | |
| 1970 | 7 | 89 | 2 | 2 | 100 |
| 1980 | 9 | 85 | 2 | 4 | 100 |
| 1983 | 14 | 80 | 3 | 3 | 100 |

Source: Anderson and Park (1989).

Asian NICs became exporters of synthetic yarns and fabrics somewhat later than was the case with clothing, and only now are they becoming significant exporters of synthetic fibers, while growth in their share of the international market for more labor-intensive items such as clothing is leveling off as China's share grows (Figure 6-3). Thus by successful structural adjustments both Japan and the East Asian NICs are making way for China in world markets for labor-intensive goods and at the same time are benefiting, as Europe also may do, from China's growing import demands even within the textile and clothing group of commodities for capital-intensive intermediate goods. Even though China's annual production of synthetic fibers trebled between 1977 and 1983, so too did the volume of its synthetic fiber imports (Park 1988). The extent to which China's imports of synthetic fibers continue to increase will depend, however, on the extent to which China limits the availability of foreign exchange for this purpose.

Figure 6.3 East Asia's Shares of World Exports of Clothing, Synthetic Yarns and Fabrics, and Synthetic Fibers, 1964 to 1984.



a. SITC division 84.

b. SITC items 6516, 6517, 6518, 6535, 6536, 6538.

c. SITC item 266. China exported none of this item during the period shown.

Source: Anderson and Park (1989).

Future Prospects and Policy Implications

Whether China continues to expand its importance in world textile, clothing and fiber markets depends both on how China reacts to its current internal macroeconomic and political problems and on how the rest of the world responds to China's growth.

On the first of these points, it seems more likely than not that history will judge the economic consequences of the Tiananmen Square events of 1989 and its immediate aftermath as a temporary interruption to China's long-run economic growth path. The economic reform process seems likely to continue, if only because the Chinese population has observed a decade of what is possible, in terms of rapid incomes growth, when markets are freed. It seems inconceivable that the leadership could deny the people a continuation of that opportunity for long and survive as leaders. Assuming the leadership recognizes this and adjusts its policies accordingly, rapid growth may soon be resumed.

In the likely event that a return to "business as usual" will still leave China struggling to overcome some major macroeconomic problems, textiles and clothing will have an even more important role to play as an export-earner in the 1990s. Hard-currency export earnings are needed not only to purchase essential imports but also to service China's sizable foreign debt. Chinese farmers are unlikely to contribute much to the earning of foreign exchange. On the contrary, the country is likely to become increasingly dependent on imports of food, feed and fiber as domestic demand growth for these products exceeds the growth in farm output as resources are attracted to industrial and service sectors (see Anderson 1989). Nor are mineral and energy products a likely source of expanding foreign exchange earnings, because as China's industrial development proceeds, domestic demand for these raw materials also is likely to grow faster than domestic supply. Already we have seen the mining sector's contribution to gross export earnings fall from more than one-quarter to only one-eighth during the 1980s—and to keep it from falling even further the domestic economy has been starved of energy to the point that many industrial plants have been grossly underutilized for lack of power. Thus exports of light manufactures such as textiles and clothing are going to be critically important for China's prosperity during the next decade or so⁷. Moreover, China's need for greater access to industrial-country markets for textiles and clothing is *immediate* for the open-door policy to remain credible domestically.

It follows from the above assessment that reforming the Multi-Fibre Arrangement (MFA) should be very much in the political and strategic interests of industrial countries, for otherwise China may turn inward again as it did during the dark age of the so-called Cultural Revolution.⁸ But more than that, allowing China's exports of textiles and clothing to

grow via a liberalization of the MFA is also in the narrow *economic* interests of many other countries, for it would allow a continuation of rapid growth in imports by China. It would expand the demand for natural fibers not only from the United States and Australia but also, directly or indirectly, from cotton-exporting developing countries such as Egypt and Sudan. It would also expand the demand for synthetic fiber imports from, for example, Japan, the Republic of Korea and Europe, as well as the demand for foreign capital inflow from such established producers of textiles. But more generally an expansion in exports of light manufactures would expand China's net imports (reduce its net exports) of primary products as the economy's industrial competitiveness strengthened, as well as increase its imports of capital equipment, high technology products and the like from advanced industrial countries.

To what extent would a more liberal MFA cause industrial country markets to be swamped by Chinese exports of textiles and clothing? Having seen China's share of world exports of these products grow from 3 to 10 percent during the past decade, many observers have been concerned at the prospect of widespread unemployment in industrial countries as Chinese goods flood in. These concerns are much less serious than is often imagined, however, for two reasons.

One is that China's exports of textiles and clothing would to some extent simply replace exports of other, more advanced countries. As is clear from Figure 6-1, Japan has made way for the Asian NICs since the 1950s, just as the United Kingdom and other European countries did for Japan earlier this century (Park and Anderson 1989). So these countries can reasonably be expected to do likewise for China, as indeed is predicted by Trela and Whalley's general equilibrium modeling results (chapter 2 in this volume). That is, industrial country imports would increase by less than the gross expansion in China's exports.

The second reason has to do with the current degree of import penetration. Even though China's share of textile and clothing sales in industrial countries has quadrupled since the mid-1970s, it had risen only to 1.6 percent by 1986 (Table 6-3).⁹ Even if China's exports were allowed to continue to grow at the pace of the past decade, it would be well into the next century before that share reached 5 percent, which is the current combined share of Hong Kong; the Republic of Korea; and Taiwan.

On the other hand, if China's access to textile and clothing markets were to continue to be limited, its desperate need to earn foreign currency would simply force it to try and expand exports of other light manufactures. As is clear from Tables 6-3 and 6-4, China's share of those product markets in industrial countries also has been growing rapidly, trebling since the reforms. Thus trying to prevent any disruption to one group of manufactures in industrial countries will simply transfer the

pressure to another group. And in the case of the United States and Australia it also would harm the interests of cotton and wool growers.

For the more advanced developing countries, such as the Asian NICs, growth in China would certainly force them also to move to more capital- and skill-intensive activities, but those activities would still include textile production processes. In addition, through joint ventures in China the expertise of producers elsewhere in East Asia could continue to be used. Hong Kong and Macau would be likely to find they are also able to expand in productive areas that are highly complementary to China's, most notably in the provision of international marketing services for Chinese manufactures.¹⁰

For the less-advanced developing countries, such as India, it is possible that rapid growth in China per se would reduce India's textile and clothing export growth prospects. That is not an argument for retaining a restrictive MFA, however, because its removal is likely to stimulate a greater reduction in textile and clothing trade between industrial countries than the expansion to exports from China, leaving room for expansion by other low-wage suppliers also.

In conclusion, a great deal hangs on whether textile and clothing trade is liberalized when the current MFA expires. Should the opportunity be provided for China to substantially expand its exports during the 1990s, that may be just what is needed to reaffirm the Chinese government's resolve to push on with its economic reforms, to open that economy even further, and thereby to promote global economic welfare. On the other hand, if current restrictions were to continue, China's capacity to expand would be thwarted, now that it is filling its quotas in the first few months of each year. One can only hope that the political and strategic significance of the consequences for China of upcoming GATT and MFA negotiations, in addition to the usual economic considerations, are well understood by those involved.

Notes

1. This and the next section draw heavily on Anderson (1989) and Anderson and Park (1989).

2. A clear exposition of that theory can be found in Krueger (1977) and Deardorff (1984). The theory combines modifications to the standard Heckscher-Ohlin trade model, synthesized by Johnson (1968) in his Wicksell Lectures to explain the intercountry pattern of manufacturing trade specialization, with the Ricardo-Viner model popularized by Jones (1971). The latter is necessary to explain the differences between countries in their comparative advantages in primary products relative to manufactures.

3. For more detailed discussion and applications of this theory, see Garnaut and Anderson (1980), Anderson and Smith (1981), Anderson (1983, 1989) and

Park and Anderson (1989). Needless to say, these supply- and demand-side influences on the pattern of export specialization can be affected by, among other things, changes in government policies affecting relative domestic prices and by intersectoral differences in rates of technological change.

4. On the usefulness and limitations of population density as a proxy for the endowment of natural resources per worker, see Keesing and Sherk (1971), Bowen (1983) and Leamer (1984).

5. In some cases the share of these goods in just manufactured exports increased initially, but then declined as per capita incomes rose. The initial increase in this latter share reflects the fact that in the preindustrialization phase exports may include some lightly processed primary products which are classified as manufactures, in which case it takes a little time for labor-intensive goods to dominate manufactured exports.

6. One of the standard indicators of (physical plus human) capital intensity of production is value added per worker (Johnson 1968). Taking the Republic of Korea's manufacturing sector as an example, the Bank of Korea's 1985 *Input-Output Table* (Seoul, 1986) shows the following differences in capital intensity:

| | Value added per worker (million Won) |
|-------------------|---|
| Synthetic fibers | 12.8 |
| Yarns and fabrics | 4.6 |
| Finished textiles | 3.9 |
| Clothing | 2.4 |

Clearly synthetic fiber production is far more capital-intensive than the production of yarns, fabrics, finished textiles and especially clothing in the Republic of Korea. A similar ranking is obtained in Japan (Park and Anderson 1989).

7. These products would be even more important if China were to reduce the overvaluation of its currency, according to results from a recently developed general equilibrium model of the Chinese economy (Martin 1989).

8. A further contribution to political stability in China from liberalizing the MFA would be the reduction in the administrative task of allocation export quotas, and hence in the corruption bred by such arrangements.

9. The share of Chinese goods in industrial country markets would be somewhat higher if measured in volume terms, or if Chinese goods finished in Hong Kong were included.

10. The general equilibrium model used by Trela and Whalley (in this volume) suggests Hong Kong and Macao would be (the only) losers from a liberalization of the MFA. However, had the model explicitly included an international marketing service activity, it is likely that the sign of the effect on these two economies also would have been positive.

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7

Republic of Korea: Rapid Growth in Spite of Protectionism Abroad

Carl B. Hamilton and Chungsoo Kim

Textile and Clothing Industry in Korea's Economic Development

How is it that Korea has grown so rapidly and still has been one of the prime targets for protectionism? The rapid economic development of the Republic of Korea has been attributed to many factors. The unwavering pursuit of industrialization through export promotion, the abundant and disciplined (alternatively, politically repressed) labor force that ensured a long-term international competitiveness, and a favorable external environment offering an expanding market have all been cited. In stylized accounts of economic success, the most often noted is of textile and clothing (T&C) exports.

Throughout the early stage of Korea's economic development, T&C exports commanded the single largest place in Korea's export drive. The T&C industry's share of total exports was almost 40 percent during 1970-73, but fell to approximately 25 percent during 1982-86. Its share of the manufacturing sector's value added reached nearly 20 percent in 1975, and it employed around one-quarter of all workers in manufacturing from 1975 to 1980 (Table 7-1, Anderson in this volume).¹

Although the relative size of the industry declined during the late 1970s and 1980s, its absolute size did not. The number of employees continued to grow during the 1980s, although slowly. Between 1980 and 1987, the volume of output of textiles and clothing increased by 93 percent and 128 percent, respectively. Output continued to grow also

Table 7-1 Textiles and Clothing Industry in Korea's Economic Development

| | 1970 | 1975 | 1980 | 1985 | 1988 ^a |
|--|--------|--------|--------|--------|-------------------|
| Share in Total Value-Added of Manufacturing Sector (%) | 14.8 | 18.9 | 15.3 | 13.7 | 10.3 |
| Total Exports (million current US\$) | 1,004 | 5,428 | 17,505 | 30,283 | 60,696 |
| Exports of Textiles & Clothing | 389 | 1,870 | 5,014 | 7,004 | 14,111 |
| (Share %) | (38.7) | (34.4) | (28.6) | (23.1) | (23.2) |
| Yarn | 64 | 271 | 692 | 694 | 1,015 |
| Fabric | 129 | 469 | 1,411 | 1,889 | 2,203 |
| Textile Products | - | 129 | 608 | 924 | 2,887 |
| Clothing (million current US\$) | 196 | 1,001 | 2,303 | 3,497 | 6,808 |
| Total Employment of Manufacturing Sector (1,000 workers) | 1,268 | 2,205 | 2,955 | 3,504 | 4,667 |
| Employment of Textiles & Clothing Industry | 260 | 558 | 732 | 726 | 762 |
| (Share %) | (20.2) | (25.3) | (24.8) | (20.7) | (16.3) |

a. Preliminary.

Source: Ministry of Trade and Industry, *Handbook of Textile and Clothing Industry*, May 1989; Korea Federation of Textile Industries, *Statistics of Textile Industries*, various issues.

between 1986 and 1987. The volume of exports of textiles and clothing increased by 153 and 155 percent between 1980 and 1987, of which 117 and 88 percentage points, respectively, were gained from 1985 to 1987 (all measured in constant won).²

With regard to exports of textiles and clothing, two features stand out: first, clothing exports have grown at a more rapid rate than fabrics or yarn, and had a larger initial share, so clothing has been the biggest contributor to overall growth over the period under review. Second, compared to the other three categories, exports of textiles have increased faster in more recent years. Textile exports increased in volume terms by some 270 percent between 1980 and 1988, while exports of clothing increased "only" by approximately 130 percent (from Table 7-1).

The fact that clothing exports still take the lion's share of Korea's T&C exports reflects the comparative advantage Korea retains in more labor-intensive production processes. However, the fact that within T&C exports the more capital-intensive textile part has increased its share

Table 7-2 Exports from Korea of Textiles and Clothing, 1982, 1985, 1987

| | 1982 | 1985 | 1987 |
|-------------------------|-------|-------|-------|
| Billions of current won | 3,793 | 5,301 | 8,044 |
| Percentage shares | | | |
| Developed area | 65 | 70 | 72 |
| EC | 16 | 12 | 15 |
| United States | 26 | 36 | 30 |
| Japan | 15 | 13 | 19 |
| Developing area | 35 | 30 | 28 |

Source: Calculated from data in GATT documents COM.TEX/W/173, 1985 and COM/TEX/W/210, 1988, Geneva.

rapidly in recent years probably points to a structural shift in the comparative advantage of Korea toward more capital- and skill-intensive types of production processes.³

The United States has always been the single largest export market for T&C products for Korea, at times taking more than one-third of the total T&C exports (Table 7-2). The number two position is shared by the European Community and Japan. In recent years Korea's exports of T&C products to the European Community (EC) have increased, but the EC's recent strong showing can be seen as a recovery of its share in the 1970s. Throughout the 1982-87 period, export markets that were not protected through the Multi-Fibre Arrangement (MFA)—mainly Japan, developing countries, Australia and New Zealand—accounted for as much as half of Korea's total T&C exports. The products under bilateral MFA-agreements constituted some three-quarters of Korea's total T&C exports to the MFA markets.⁴

In developed country markets, how did Korea fare compared to its competitors? Table 7-3 presents Korea's (value) share of apparent consumption in major markets. During the 1980s Korea managed to increase its shares of apparent consumption both in the United States and in

Table 7-3 Korea's Share of Apparent Consumption of Clothing in Selected Developed Areas (Percentage of value)

| | 1970-73 | 1974-77 | 1978-81 | 1982-86 |
|-----------------|---------|---------|---------|---------|
| United States | 0.7 | 1.7 | 2.7 | 3.7 |
| EC ^a | 0.2 | 1.5 | 2.4 | 2.8 |
| EFTA | 0.5 | 2.3 | 2.4 | 2.8 |
| Japan | 1.6 | 3.7 | 4.0 | 3.8 |

a. EC-7.

Source: International Economic Data Bank, RSPacS, Australian National University, Canberra.

Western Europe—but not so in Japan. The latter may seem somewhat curious since the United States and Western Europe protect themselves against Korea under the MFA, while Japan does not. We do not know whether this means that the MFA has tended to protect an established Korean position in the markets of the United States and Western Europe against new developing country exporters, for example, or that Korea in the Japanese market has been subject to fiercer domestic competition and import protection than in North America and Western Europe. Although Japan has low tariffs on T&C, there are nontariff barriers on such products from Korea. The measures are less transparent than those under the MFA, and it is unclear how restrictive the Japanese measures have been.⁵ Certainly, one cannot rule out nontariff measures as one reason for the unchanged or falling Korean share of Japanese apparent T&C consumption.

Korean imports of textiles and clothing have always been considerably less than exports. The specialization in the downstream activities of the T&C industry is reflected in Korea's very modest imports of T&C products other than yarn and fabrics, and particularly raw cotton (Table 7-4). The relative increase in textile production is reflected not only in increasing imports of chemicals for production of man-made fibers, and yarn and fabrics made of such fibers, but also in increased imports of

Table 7-4 Korean Imports of Textiles and Clothing
(Millions of current US\$)

| | 1980 | 1985 | 1988 |
|----------------------------|---------|---------|---------|
| Textiles and Clothing | 1,203.0 | 1,512.2 | 3,065.1 |
| Of which (percent): | | | |
| Raw Material | 66 | 56 | 45 |
| (Cotton) | (50) | (35) | (23) |
| Yarn | 9 | 15 | 22 |
| (Man-made Fibers) | (8) | (7) | (11) |
| Fabric | 24 | 28 | 32 |
| (Man-made Fibers) | (12) | (13) | (11) |
| Clothing, Textile Products | 2 | 1 | 1 |
| (Clothing) | 1 | 0 | 1 |
| Chemicals | | | |
| (for Man-made Fibers) | 398.3 | 606.6 | 967.0 |
| Textile-related Machinery | 177.8 | 203.4 | 707.9 |
| Of which (percent): | | | |
| Spinning | 41 | 39 | 43 |
| Weaving, Knitting | 28 | 25 | 29 |
| Dyeing | 11 | 15 | 10 |
| Sewing | 9 | 8 | 9 |

Source: Korean Office of Customs, *Korean Yearbook of International Trade Statistics*, 1980–1988.

textile machinery, mainly for spinning and weaving. Apart from the derived demand from increased production, this importation probably also reflects a quality upgrading in response to the quantitative restrictions through investment in new technology.

Along the path of continuous and rapid growth, Korea's textiles and clothing industry has weathered many obstacles. However, the protectionism abroad, particularly during the 1980s, is often suggested as the most serious challenge it has had to face so far.

However, against the background of the Korean T&C industry's experience of the 1980s with substantially increased volumes of T&C output; substantially increased volumes of T&C exports, also to the MFA-protected markets; and increased shares of apparent T&C consumption in the same markets, the question arises whether one should really claim that during the 1980s the MFA has been—or become—an obstacle for the expansion of the Korean T&C industry? Have the bilateral restrictions under the MFA really been binding? In the next section we will try to cast some light on this question through the application of several measures of restrictiveness of quantitative restrictions.⁶

Restrictiveness of Voluntary Export Restraints (VERs) on Korea

(i) *Number of restricted categories.* For the first measure of restrictiveness the period 1981 to 1987 is chosen, and reference is made to the United States only. This period encompasses the final year of MFA II (1981), all the years of MFA III (1982 to 1985), and two years of MFA IV (1986 to 1987). It is also for this period only that the United States International Trade Commission (USITC) reports both value and quantity of imports by MFA commodity category, both with regard to total imports in the United States and imports from Korea.⁷ We have considered 111 MFA categories, of which 67 are clothing and 44 textile, including yarn.⁸

Table 7-5 shows the number of categories that have been subject to specified volume quotas in the successive bilateral MFAs between the United States and Korea. The changes in category coverage of the MFA with regard to Korea closely resemble the general trend of U.S. MFA bilaterals. The number of restricted categories has increased with each new MFA, and there was a greater change from MFA III to MFA IV in 1986 than from MFA II to MFA III. With every new MFA, clothing has been split into a larger number of more narrowly defined categories than have textiles. For example, with MFA IV, 30 new clothing categories were added compared to 18 new textile categories. This chopping acts as an increasingly severe non-tariff barrier since it makes the task of the

Table 7-5 Numbers of U.S. MFA Categories under Bilateral Quotas, 1982-87

| | Total number of categories | MFA II (1981) | MFA III (1982-86) | MFA IV (1986-87) |
|-----------------|----------------------------------|------------------|----------------------|---------------------|
| Cotton | 41 | 7 | 13 | 30 |
| Clothing | 23 | 6 | 12 | 20 |
| Textiles | 18 | 1 | 1 | 10 |
| Man-made Fibers | 44 | 11 | 18 | 29 |
| Clothing | 26 | 11 | 15 | 22 |
| Textiles | 18 | 0 | 3 | 7 |
| Wool | 24 | 9 | 10 | 16 |
| Clothing | 16 | 9 | 9 | 14 |
| Textiles | 8 | 0 | 1 | 2 |
| Total | 111 | 27 | 41 | 75 |
| Clothing | 67 | 26 | 36 | 56 |
| Textiles | 44 | 1 | 5 | 19 |

Source: Korea Federation of Textile Industries.

exporting country to fill its quotas more difficult due to reduced flexibility in meeting the frequent and significant changes in the composition of demand for clothing.

(ii) The second measure is the *trade coverage ratio*, used, for example, by Erzan and others (in this volume). Here the ratio refers to exports from Korea to the United States subject to bilateral quotas as a percentage of total of exports of the commodity group in question (see the measure REST/TOT, column II, Table 3-1 in Erzan and others in this volume.)⁹

This measure is supposed to answer a question like the following one: How much of the total exports of a particular commodity group (cotton clothing, say) from Korea to the United States was covered by bilateral quotas during the various MFAs? From Table 7-6, columns (2)-(4), it can be seen that the trade coverage ratio increased significantly over a period of time, in aggregate from 73 percent to 97 percent, with particularly strong increases in textiles and in clothing products made of cotton.

However, the trade coverage ratios presented in columns (3) and (4) of table 7-6 suffer from a bias, since the value of restricted trade in the numerator can be expected to be held down by the restrictions themselves. Therefore, it can be argued that the changes in coverage ratio from one MFA period to the next is better captured when the trade weights used are those of the previous MFA period. The result of such a modification is seen in columns (5) and (6) of Table 7-6. The jump in the ratio between MFA III and MFA IV is modified somewhat.

The trade coverage ratios suggest that over time the United States tightened its quantitative restrictions considerably. In 1988, 99-100 per-

Table 7-6 Trade Coverage Ratios: Exports from Korea to the United States subject to Bilateral Quotas as Percentage of Total Exports, Periods MFA II to MFA IV
(percentage of value)

| Commodity group (1) | Export value weights of present MFA period | | | Export value weights of previous MFA period | |
|------------------------|--|----------------|---------------|---|---------------|
| | MFA II (2) | MFA III (3) | MFA IV (4) | MFA III (5) | MFA IV (6) |
| Cotton | 33 | 52 | 96 | 54 | 96 |
| Clothing | 44 | 69 | 98 | 74 | 99 |
| Textiles | 10 | 5 | 88 | 10 | 89 |
| Man-made Fibres | 78 | 84 | 97 | 89 | 99 |
| Clothing | 86 | 95 | 100 | 98 | 100 |
| Textiles | 0 | 8 | 87 | 6 | 91 |
| Wool | 73 | 79 | 99 | 91 | 100 |
| Clothing | 90 | 75 | 100 | 90 | 100 |
| Textiles | 0 | 100 | 97 | 99 | 100 |
| Total | 73 | 80 | 97 | 85 | 99 |
| Clothing | 83 | 91 | 99 | 95 | 100 |
| Textiles | 3 | 14 | 87 | 15 | 91 |

Source: Ministry of Trade and Industry, Korea-U.S. Textile Arrangements, 1965-1989; USITC, *U.S. Imports of Textile and Apparel Products under the Multi-Fiber Arrangement*, 1981-1984, USITC Publication 1967, October 1985; USITC, *U.S. Imports of Textiles and Apparel under the Multi-Fiber Arrangement: Statistical Report through 1987*, USITC Publication 2075, March 1988.

cent of clothing of all types of fibers was covered by bilateral quotas, and some 90 percent of all types of textiles. For textiles this means a remarkable increase from a modest 3 percent during MFA II.

(iii) The third measure of restrictiveness is to consider how much of the quota that has been utilized: *the quota utilization rate*. One must be cautious when interpreting this rate for individual categories, since provisions exist under the MFA for substitution of exports between periods ("carry-over" and "carry-forward"), and for substitution between categories ("swing").¹⁰ For this reason it is essential to use averages over categories and averages over time (Table 7-7). The utilization rates are well over 90 percent throughout the studied period, which is very high in an international comparison (see Erzan and others in this volume). However, there is no significant increasing trend.

(iv) A way to measure change in restrictiveness over time is to consider changes in *the spread of quota utilization rates*, measured, for example, as the standard deviation (SD). One expects that with increasing restrictiveness of VERs in the main categories, exporters will increase their efforts

Table 7-7 Korean T&C Exports to the United States and EC, Quota Utilization Rates and Unit Values, 1981-87

| | MFA II | MFA II | | | | MFA IV | | Average |
|---|--------------|--------------|--------------|--------------|--------------|-----------------------------|-----------------------------|---------|
| | 1981 | 1982 | 1983 | 1984 | 1985 | 1986 | 1987 | 1981-87 |
| Average quota utilization rate ¹ | | | | | | | | |
| United States | 93.3 | 96.5 | 94.9 | 95.0 | 93.9 | 92.7 (96.4) ² | 95.4 (95.3) ² | 94.5 |
| EC | 97.6 | 93.6 | 85.8 | 84.5 | 87.6 | 98.8 | 97.6 | 92.2 |
| Standard deviation of utilization rates | | | | | | | | |
| United States | 24.3 | 21.1 | 21.1 | 19.6 | 17.0 | 21.0 (14.8) ² | 19.6 (16.2) ² | |
| EC | 36.1 | 36.7 | 34.2 | 35.0 | 38.7 | 38.8 | 35.6 | |
| Average unit value | 3.65 | 2.66 | 3.09 | 3.56 | 3.47 | 3.99 (3.96) ² | 3.99 (4.64) ² | |
| USA, per SYE, US\$ Index | | 100 | 116 | 134 | 130 | 149 | 174 | |
| Import unit value index, US manufacturers | | 100 | 98 | 97 | 94 | 97 | 104 | |
| EC, per MT, ECU Index | 13.59 | 14.91 | 15.79 | 18.07 | 17.37 | 14.34 | 14.82 | |
| Import unit value index, German manufacturers | | 100 | 106 | 121 | 116 | 96 | 99 | |
| German manufacturers | | 100 | 102 | 108 | 113 | 104 | 99 | |
| Index of Korean unit export value | | | | | | | | |
| MFA exports to United States | | 100 | 123 | 148 | 155 | 180 | 196 | |
| to EC | | 100 | 102 | 107 | 108 | 116 | 132 | |
| All manufactures to world | | 100 | 102 | 110 | 114 | 118 | 121 | |
| Exchange rates | | | | | | | | |
| won/US\$ (index) | 681 (100) | 731 (107) | 776 (114) | 806 (118) | 870 (128) | 992 (130) | 823 (121) | |
| won/ECU (index) | 739 (100) | 717 (97) | 691 (94) | 636 (86) | 663 (90) | 865 (117) | 950 (129) | |

1. Weighted by value of shipment.
2. Number in parenthesis refers to average quota utilization rate, or standard deviation or unit value of the MFA III categories., For the EC the categories of MFA III and MFA IV coincide.

Note: SYE = square yard equivalents, MT = metric tons, ECU = European currency unit.

Source: Quota utilization rates, standard deviations, unit values, calculated from the World Bank computer files on the MFA; import unit values of manufactures from OECD *Economic Outlook* data files; and exchange rates from *International Financial Statistics*, April 1989, Washington.

to exploit any possibility to increase exports in categories with originally low utilization rates; the spread in utilization rates is therefore expected to diminish with increasing restrictiveness.

For Korean exports to the United States, the SD measure indicates increased restrictiveness from 1981 to 1986 and then a fall in 1987. The measure also indicates higher and increasing restrictiveness of U.S. VERs when compared with the EC (Table 7-7). The observed changes in SD values of Korea-U.S. trade coincide, of course, with the rising U.S. dollar during the first half of the 1980s, rapidly making the 1983-85 Korean exports to the United States more profitable than exports to the EC, and then reduced profitability of exports to the United States in 1987 with the falling U.S. dollar (Table 7-7).

(v) As an alternative, also the development over time of *unit values of exports* of MFA categories can be used as an indicator of restrictiveness. When the U.S. dollar rose relative to the Korean won, an unrestricted Korean exporter could (a) keep his export prices unchanged in won, reduce his prices in U.S. dollars and increase his volume of exports to the United States (full exchange rate pass-through), (b) keep his exported volume unchanged and increase his prices (and profit) in won (no exchange rate pass-through), or (c) choose a combination of (a) and (b). However, if the Korean exporter was restricted in a binding way in quantity, he would not be able to increase his exported volume and he would have to choose alternative (b) and increase his prices in won.

What happened then with unit values of export in Korea-U.S. trade? Between 1982 and 1987 the U.S. import unit value of Korean MFA III categories increased in nominal terms by some 75 percent in U.S. dollars (Table 7-7). At the same time the import unit value index for all manufactures imported into the United States increased by a mere 4 percent.

The pricing behavior of Korean exporters to the United States differed from their behavior in the EC market, where the 1982-87 import unit value of Korean MFA exports moved more or less on par with the ECs aggregate import unit value index for all manufactures.

The most natural explanation for the observed price hikes in the United States is that Korean exporters, in order to prevent acute physical shortages of their restricted T&C products, raised their dollar prices sharply, and—unlike for the EC—this strongly suggests increasing and severe restrictiveness of the MFA during the period of the high U.S. dollar. Bearing in mind that part of the price increase is likely to reflect quality upgrading of Korean exports to the United States does not change this conclusion, since the causality goes from restrictiveness to upgrading. Of course, one implication of the dollar price hike is that export unit values denominated in Korean won rose even more. With an index 1982=100, the average unit value in won during MFA III rose by some 50 percent, and from 1982 to 1987 by over 95 percent (Table 7-7).

There is obviously no conflict here between, on the one hand, rapid value growth and, on the other hand, a restrictive MFA regime. Indeed, Korea has been a winner!

(vi) Our sixth measure of restrictiveness is to estimate the *import tariff equivalent* (MTE) of the U.S. VERs on Korea.

In Hamilton (1986) the MTE was estimated for EC and U.S. VERs under the MFA in Hong Kong, and in Hamilton (1988) a formula was derived for calculating the tariff equivalent of quotas of other exporting countries, once the tariff equivalent of one exporting country was known.¹¹ In this case, since both tariff rates are known, as well as the Hong Kong-U.S. MTE rate, the crucial information concerns the relative supply prices of Hong Kong and Korea. These are calculated as follows: the cost of capital is assumed to be the same in the two countries. Capital is not subsidized in Hong Kong, and subsidized loans to apparel production for exports in Korea have been very small. Labor cost is the important cost component, and it is measured by data on the "compensation cost for production workers" in the two countries' clothing industries.¹² The labor cost then has to be adjusted for labor productivity differences between the two countries. This was done by calculating the value of output per operator and per hour. This real supply price also reflects upgrading of quality of exports, and therefore we have to assume that upgrading of MFA exports to the United States took place to the same extent from Korea and Hong Kong. The relative supply price is given in Table 7-8.¹³ Armed with this information, Hong Kong's MTE rates and the two tariff rates, the Korean MTE rates are calculated for 1982-84 (Table 7-8).¹⁴ The MTE rates for U.S. VERs on Korea are both very high and rising during the studied period, indicating the most significantly of our six measures an increasing restrictiveness of the U.S. VERs.

So far the discussion has been with regard to the restrictiveness of the VERs under the MFA only. However, even a brief description of the trade barriers facing Korean T&C would be incomplete without mentioning Japan. In an international comparison, Japan's tariffs on T&C goods are low.¹⁵ The situation with regard to Japanese nontariff measures against Korea is less clear. The following nontariff measures have been reported in *Textile Asia*, quoting Japanese sources: In 1975 and in 1977 the Textile Products Division of the Japanese Ministry of International Trade and Industry (MITI) sent letters to Japanese trading firms requesting them to limit imports of cotton yarn, and subsequently also of cotton cloth. In 1978 a VER was entered into with Korea on their exports of woven silk fabrics. In 1981, "following the establishment [in Japan] of a cartel for cotton textiles," the head of MITI's Basic Consumer Industries Bureau called on trading firms to "exercise utmost restraint" in importing and to report monthly their imports to MITI. In 1982 the

Table 7-8 Estimated Import Tariff Equivalents (MTE) of United States' VERs on Korea's Exports of Clothing, 1982-84

| | 1982 | 1983 | 1984 Jan-May | Weighted average Jan 82- May 84 |
|----------------------------------|------|------|-------------------|--|
| Supply price ratio (p^k/p^h) | 0.80 | 0.89 | 0.73 ^a | 0.83 |
| MTE (percent) | 30 | 34 | 101 | 44 |
| Tariff (percent) | 30 | 30 | 30 | 30 |
| Total trade barrier (percent) | 69 | 74 | 162 | 87 |

a. Refers to Jan-Dec 1984.

Sources: For the supply price ratio calculation: value of output (ISIC 322), number of operatives and total number of hours worked by operatives are taken from *UN Industrial Statistics Yearbook 1985*, Vol. I, and hourly compensation cost for production workers in clothing production (USSIC 22) from U.S. Department of Labor, Bureau of Labor Statistics, Office of Productivity and Technology, Washington DC, March 1989, unpublished data. MTE rates for Hong Kong exports and tariff rates for Hong Kong and Korean exports to the United States are taken from Hamilton (1988), Table 8.2.

Japanese government pledged that Korea, the principal supplier, should reduce its exports of cotton yarn, involving an immediate two-thirds' decline in these exports.¹⁶ In 1987, in connection with a Japanese trade mission to Korea, "the Japanese officials stressed the need for Korea to self-regulate its textile exports to Japan."¹⁷ In 1988, Japan imposed a VER on Korean exports of knitwear. (However, at least in the beginning, the knitwear VER had no effect, and MITI demanded new talks with Korea.¹⁸)

There is also the old, controversial issue of whether the Japanese distribution and marketing system is biased against imports. There is, for example, a graphic description by the Hong Kong correspondent of *Japan Textile News* that: "Many Hong Kong clothing manufacturers who have opened up vast markets in the West, and kept up with [its] sweeping twists and turns of fashion trends . . . [through] rare skill and lightning flexibility, are skeptical about spending time trying to break into the Japanese market. Under the apparently smooth waters of quota-free market, they detect the reefs of nontariff barriers and a closed marketing system."¹⁹ But, what is meant by a "closed marketing system"? A Korean garment export manager has stated that indeed Japan has a very elaborate quality inspection system, "but once your quality is established it is a stable market with the merit of having no quotas."²⁰ In short, not only the MFA signatories in North America and Western Europe have had restrictive measures on T&C products from Korea, but

it is clear that Japan also has had such measures. However, since the Japanese measures are less known and less transparent than those under the MFA and GATT's Textile Surveillance Body, their restrictiveness is also less known than those of, for example, the United States and the EC.

The conclusion of this section is that although the volume of T&C production doubled and the volume of exports almost trebled in Korea during the 1980s, the U.S. MFA regime must have had increasingly significant restricting effects on the volume of export of MFA products from Korea to the United States; exports of MFA products would have been much larger in the absence of the MFA—as suggested by the modeling results of Trela and Whalley (in this volume). The case of Korea during the 1980s illustrates that it has been possible for a country to expand—and expand rapidly—in spite of increasingly binding MFA restrictions in major markets.

To what extent was this achievement government-induced? In the next section we deal with this issue.

Government Policy and the Korean Textiles and Clothing Industry

We look briefly into three forms of proclaimed government support for the T&C industry's adjustment to trade restrictions: change in industry structure, foreign direct investment, and incentives for export market diversification.

In the mid-1970s, the economic conditions of the Korean clothing industry began to deteriorate in relation to the government-supported industrialization in chemical and heavy manufacturing industries. Further, the surge of construction activities in the Middle East provided a major new source of demand for Korean labor, produced near full-employment, and created a general shortage of skilled labor in Korea (Hak-Yong Rhee 1988). The government-inspired enhancement of the Korean economy to a more skill-and-technology-oriented economy thus contributed to a relative decline of the clothing industry.

The Korean balance of payments surplus, generated mainly by Korea's trade with the United States, brought about incessant trade disputes with the United States. One result has been to allow for a rapid appreciation of the Korean won (Table 7-7). Government decisions to liberalize imports has been regarded in Korea as an important measure to reinforce private efforts for adjustment to exchange rate changes. Measuring import liberalization as the number of items whose import license approvals are automatic in relation to the total number of items in the same category shows a ratio of 14 percent for clothing in 1978, and by 1986 this ratio had increased to 100 percent. For textiles the ratio went

from 43 percent to 97 percent during the same period, and reached 100 percent in 1988.²¹

Industry Structure

It has been hard for Korea's T&C industry to comprehend that the government takes the view that there is a need for "structural adjustment," since the T&C industry has been at the forefront in the drive for export-led industrialization during the last two decades, and is still the single largest export industry. The industry has met the exchange rate changes primarily in three ways: first, modernization and rationalization of production; second, transfer of production facilities abroad through direct foreign investments (FDI), and third, diversification in exports away from the most restricted markets.

Table 7-9 presents the amounts of government financial resources put up for so-called "structural adjustment." Until the mid-1980s the amounts were insignificant. Then the support took two forms: first, modernization of existing production facilities coupled with piecemeal attempts of rationalization, and second, technological enhancement through research and development (R&D). Until 1985, the government's support for existing production facilities, the Production Facility Fund (PFF), was managed within the so-called Modernization Fund (MF). MF support was provided under the conditions of an eight-year maturity loan, at a slightly preferential interest rate. Ranging in total between 3.2 and 9.6 million U.S. dollars per annum, most of the MF loans provided during this period were used in the textile part of the industry to substitute old spinning and weaving machinery for new, more efficient machinery.

Since 1986, PFF has been managed through two separate funds, the "Structural Adjustment Fund" (SAF) and the "Rationalization Fund" (RF). SAF has since then been providing support for the spinning, weaving and dyeing industries, with a distinct emphasis on textile materials. RF has been providing support mainly for the knitting and sewing industries. As a result, the former fund has been involved mostly with large-size firms, while the latter has been involved mostly with small- and medium-size firms. The overall purpose of PFF remains modernization of facilities, as before. But still the change that took place in PFF in the mid-1980s was drastic, particularly in terms of intensification and expansion of the modernization efforts. More than four-fifths of the total support of PFF was made within the three-year period 1986 through 1988, and amounts paid out annually were from approximately 92 to 101 million U.S. dollars.

An example is the rationalization scheme for the weaving industry. It has been pursued in three ways: first, to contain expansion of production capacity, new entry was strictly regulated; second, in order to replace outdated facilities with modern, efficient ones, factory automation was promoted; and third, smooth exits of "marginal" (defunct) firms were encouraged. In this scheme, which was carried out from July 1986 to June 1989, around one-sixth of the total number of firms in the weaving industry benefited from PFF funds of 0.22 billion U.S. dollars (billion=thousand million). The result has been significant: a 22 percent increase in labor productivity with the share of machines regarded as "out-dated" dropping from 69 percent to below 50 percent; the "ratio of factory automation" rising from 25 percent to 45 percent; and a reduction in employment in the weaving industry by 21,000 workers, or 11 percent.

For the purpose of "technological enhancement," Korea has been managing two R&D funds. The "Fund for Development of New Materials" (FDM), the larger of the two funds for research and development, has been providing financial support mostly for firms that attempt to develop new textile materials and new manufacturing processes through five-year maturity loans at a preferential interest rate. The "Fund for Technological Development" (FTD) has been providing support for development of new technologies through basic research. The value-added content of textile products is increased through new, high-valued materials and new fashion and design. Of the total disbursements of the R&D funds, five-sixths have been made during the last three years.

A crucial question is whether these subsidies to the Korean T&C industry can be said to be of such significant magnitude that they are an important explanation for the observed expansion and flexibility of the industry in the face of overseas trade restrictions. The answer must be no. These measures were introduced rather late—from 1986 onward—and they are still relatively small. Each year from 1986 to 1988 they constitute only around two percent of the total value added of the Korean T&C industry.²²

Foreign Direct Investment

In recent years, the Korean textile and clothing industry has ventured into foreign direct investment (FDI). Investments have been undertaken in response to relative cost increases at home, and not just as a conscious effort at the firm level to avoid protectionism.²³

Before 1985, Korea's foreign investments in the textile and clothing sector were sporadic—approximately two cases of foreign investment were undertaken annually, and the single largest investment amounted

Table 7-9 Government Support to the Korean Textiles and Clothing Industry, 1981-88
(Number of firms; million US\$)

| | 1981 | | 1982 | | 1983 | | 1984 | |
|--|-----------|------------|-----------|------------|-----------|------------|-----------|------------|
| | No. | Amount | No. | Amount | No. | Amount | No. | Amount |
| Production Facility Fund | | | | | | | | |
| 1. Structural Adjustment Fund | | | | | | | | |
| 2. Rationalization Fund (Industrial Development Law) | | | | | | | | |
| 3. Modernization Fund | 95 | 9.6 | 46 | 4.0 | 56 | 3.5 | 41 | 4.5 |
| Subtotal | 95 | 9.6 | 46 | 4.0 | 56 | 3.5 | 41 | 4.5 |
| R & D Fund | | | | | | | | |
| 1. New Material Development Fund | | | 2 | 0.3 | 3 | 0.5 | 3 | 0.4 |
| 2. Technology Development Fund | | | | | | | 5 | 1.0 |
| Subtotal | | | 2 | 0.3 | 3 | 0.5 | | |
| Total | 95 | 9.6 | 48 | 4.3 | 59 | 4.0 | 49 | 5.9 |

Table 7-9 (continued)
(Number of firms; million US\$)

| | 1985 | | 1986 | | 1987 | | 1988 | | Total No. |
|--|------|--------|------|--------|------|--------|------|--------|-----------|
| | No. | Amount | No. | Amount | No. | Amount | No. | Amount | |
| Production Facility Fund | | | | | | | | | |
| 1. Structural Adjustment Fund | | | 240 | 96.4 | 219 | 85.1 | 201 | 79.3 | 660 |
| 2. Rationalization Fund (Industrial Development Law) | | | 30 | 3.0 | 37 | 6.6 | 97 | 19.7 | 164 |
| 3. Modernization Fund | 30 | 3.2 | 9 | 2.0 | — | — | — | — | 277 |
| Subtotal | 30 | 3.2 | 279 | 101.4 | 256 | 91.7 | 298 | 99.0 | 1101 |
| R & D Fund | | | | | | | | | |
| 1. New Material Development Fund | 4 | 0.6 | 9 | 1.6 | 14 | 2.5 | 22 | 4.8 | 45 |
| 2. Technology Development Fund | 4 | 1.1 | 7 | 1.1 | 7 | 1.2 | 6 | 1.4 | 41 |
| Subtotal | | | | | | | | | |
| Total | 38 | 4.9 | 295 | 104.1 | 227 | 95.4 | 326 | 105.2 | 1187 |

Note: Figures are in terms of U.S. dollars, for which yearly average exchange rates as reported in *International Financial Statistics*, IMF, have been utilized.

Source: Korea Federation of Textile Industries.

to just under half-a-million U.S. dollars. However, since 1986 the pattern and magnitude of Korean FDI in textiles and clothing has changed fundamentally. The number of foreign investment projects approved by the Korean government grew from 2 in 1985 to 17 in 1986, 20 in 1987, and 27 in 1988. The planned annual FDI of the industry measured by value increased by over 50 percent from 1986 to 1987, even though it had increased ten times between 1985 and 1986 (Table 7-10).

The investments have taken place in the United States and developing countries. Among the investments in the United States is a \$US16 million, Korean wholly-owned plant in the traditional T&C state of South Carolina that employs approximately 300 workers.²⁴ Of the developing countries, the Caribbean countries have proved especially attractive locations, and this FDI seems to be a classic example of trade diversion—away from low-cost Korea to higher-cost suppliers (Table 7-10). These countries have attractive incentives for foreign investors—most of them harbor Free Trade Zones (FTZ) and, most important, producers in these countries have free and secured access to the U.S. market through the trade preferences given under President Reagan's Caribbean Basin Initiative (CBI).²⁵ Korean investors have been particularly attracted to the Dominican Republic and Costa Rica, but also to Jamaica and St. Lucia.²⁶ The production plants are either wholly-owned Korean firms or joint ventures with U.S. firms. Most of Korea's foreign investment has been in small- and-medium-size plants in the apparel industry and not large textile plants. Out of Korea's 72 planned overseas production facilities, only seven produce textiles, and only two of these seven are yarn producers.²⁷

Market Diversification

Suppliers of export goods to the world market can be expected to have an incentive to diversify in export markets not only to reduce export-earnings instabilities in general (fluctuations in income growth, relative prices, etc.), but also to avoid restrictive trade policies of importing countries. Korea is not an exception. Verbally, market diversification has always been stated by the government of Korea as being at the top of Korea's trade policies. Is this true though? And would it be a good policy?

Though the need for market diversification has long been recognized, not much seems to have been done in substance. More attention has been paid to maximizing opportunities in the traditional markets through economic diplomacy abroad and structural enhancement at home. Against the background of the figures for output and exports this does

Table 7-10 Foreign Investments Made by the Korean Textiles and Clothing Industry
(Current 000 US\$/number of projects)

| Year of government approval | Region | South/Central America | Asia | United States | North Mariana | Others | Total |
|-----------------------------|----------|-----------------------|----------|---------------|---------------|----------|------------|
| 1978 | Clothing | 450(1) | 153(1) | — | — | — | 603(2) |
| | Textiles | — | — | — | — | — | — |
| 1982 | Clothing | 150(1) | — | — | — | — | 150(1) |
| | Textiles | — | — | — | — | — | — |
| 1983 | Clothing | 694(2) | — | — | — | — | 694(2) |
| | Textiles | — | — | — | — | — | — |
| 1984 | Clothing | — | — | — | 845(1) | — | 845(1) |
| | Textiles | — | — | — | — | — | — |
| 1985 | Clothing | — | — | — | 700(1) | — | 700(1) |
| | Textiles | 300(1) | — | — | — | — | 300(1) |
| 1986 | Clothing | 8,645(11) | — | 200(1) | 1,940(3) | — | 10,785(15) |
| | Textiles | 600(1) | — | 450(1) | — | — | 1,050(2) |
| 1987 | Clothing | 2,430(6) | 2,549(4) | 8,000(2) | 2,140(5) | — | 15,119(17) |
| | Textiles | 550(1) | 400(1) | 475(1) | — | — | 1,425(3) |
| 1988 | Clothing | 10,333(11) | 3,187(7) | 1,000(1) | 1,000(1) | 2,042(1) | 17,562(21) |
| | Textiles | 2,610(2) | 2,331(2) | — | — | 1,328(2) | 6,269(6) |

Source: Ministry of Trade and Industry, *Handbook of Textile and Clothing Industry*, May 1989; Korea Federation of Textile Industries, *Statistics of Textile Industries*, various issues.

not strike one as being in any way an incorrect policy—a high verbal profile, and a low actual profile.

However, one incentive that has been offered to encourage market diversification away from MFA-restricted markets to nonrestricted markets has been the allotment of more quotas to firms that also export to non-MFA markets. The Korean government roughly divides the total MFA quota into “base” quota (around 80 percent of the total quota) and “open” quota. Whereas the former is allocated on the basis of firms’ past export performances to MFA-restricted markets, the latter is allocated according to other criteria. Of the “open” quota, around a quarter is awarded to firms which have exported textiles and clothing at a higher price than a specified minimum “cut-off” price. This is to give firms an incentive to upgrade the quality of their exports. Another quarter has been allocated to firms that have been relatively successful with structural adjustment. The other half of the “open” quota has been allocated to firms that have been relatively successful in exporting to non-MFA markets.²⁸

One reason why Korea’s market diversification efforts have apparently failed, if they ever were of any real substance, is likely to be found in the significant strength of U.S. import demand for textiles and clothing due to macroeconomic factors (exchange rate appreciation) when compared with import demand of the new non-MFA restricted markets. From the late 1970s to 1985, the share of the U.S. has continuously increased, a period during which United States’ demand for imports was strong, especially during the first half of the 1980s.

Summary

The Korean T&C industry has been a success—with expanding employment, output and exports—and continues to be so despite being one of the prime targets of the MFA—possibly the most protectionist of international arrangements.

In the absence of the MFA, Korea’s volume of T&C exports and production would have grown even faster than they have done: Our measures of restrictiveness indicate that at least the U.S. VERs were increasingly restrictive from the early 1980s and till 1986–87. In spite of the binding MFA restrictions, Korea’s volumes of textile and clothing production doubled, and exports almost trebled during the same period. Thanks to the restrictions, the value of exports grew significantly faster because of rapidly rising prices of MFA exports to the U.S. market.

Korea’s government has encouraged a gradual change-over to more capital-intensive textile products than clothing, foreign direct investment, and market diversification. However, on closer inspection, these

programs have all been so politically half-hearted and small in financial terms that they should not be credited for the observed change-over to textiles, the rapidly increasing foreign investment in the Caribbean, or the lack of significant diversification of export markets. The explanations are rather found in Korean exporters always filling quotas, always pricing to what the market will bear, and pushing hard at product lines and markets not under restrictions.

Notes

The authors have benefited from the comments of Refik Erzan, Michael Finger, Harry Flam, Paula Holmes, Will Martin, Jean Waelbroeck and Martin Wolf.

1. The sector's relative size in the Korean economy in a longer perspective can be studied in Anderson, Table 6-1, in this volume.

2. Calculated from Appendix Tables 4 and 5 in GATT 1984, Appendix Table 13 in GATT 1988, IMF's won/dollar exchange rate, and the Korean wholesale price index (WPI) for 1980-87. In World Bank (1987) the focus is on the *relative* decline of the industry, which leads to a misleading use of labels like "sunset industry," and "declining industry," and to problems with the comparisons of the development of Korea's T&C industry with the (in *absolute* terms) often rapidly contracting T&C industries of the OECD countries.

3. Such a change is also supported—at least verbally—by the government. For example, the Korean Ministry of Trade and Industry has declared that by the year 2000 Korea should be the biggest textile exporting country in the world, and Seoul should be one of the big fashion cities, along with Paris, Milan, New York and Tokyo. *Textile Asia*, December 1987, p. 130.

4. 1987, 75 percent, and 1988, 87 percent.

5. See end of section on Restrictiveness of VERs on Korea.

6. The general issue of protectionism and growth is discussed more generally in Trela and Whalley (in this volume), and with regard to the United States in Cline, 1987. On trade barriers facing Korea in other commodity groups, see Chiang (1988) and Kim (1986).

7. Products made of cotton, man-made fiber (MMF) and wool are included, but not products made of fibers like jute, ramie and silk. USITC reports on products produced of these fibers from 1986 only (MFA IV).

8. All together there were 118 and 135 MFA categories during MFA II-III and MFA IV, respectively. Only category-specific quotas are considered. It is important to note that some categories are aggregated into a "group" and cannot be analyzed at the category level. These "groups" are not included here.

9. On these types of measures of nontariff barriers to trade, see Nogues, Olechowski and Winters (1986).

10. See Trela and Whalley in this volume.

12. Let t_j^{hm} and t_j^{km} be the *ad valorem* tariff rates on product j exported from countries h and k to importing country m , and let u_j^{hm} and u_j^{km} be the *ad valorem* import-tariff equivalents of the bilateral VERs on product j exported from

countries h and k to m . Since a single commodity—aggregate clothing—is being considered, the subscript j is dropped here. The supply prices in exporting countries h (Hong Kong) and k (Korea) are denoted by p^h and p^k , respectively, and the domestic price in importing country m (United States) is denoted p^m . For trade between countries h and m , and k and m , one can then write (Hamilton 1988, p. 203),

$$(1) p^h(1 + u^{hm})(1 + t^{hm}) + p^m,$$

and

$$(2) p^k(1 + u^{km})(1 + t^{km}) = p^m.$$

Combining (1) and (2) one can write the following expression for country k 's (Korea's) MTE rate,

$$(3) (1 + u^{km}) = [p^h(1 + u^{hm})(1 + t^{hm})]/p^k(1 + t^{km}).$$

12. That is, p^k/p^h .

13. On more elaborate comparative cost measures, see Baldwin and Hilton 1984. Our supply price differs from the one in Trela and Whalley 1988 (used also in their paper in this volume) in that account is here taken of the different number of working hours in different countries, our source of wage costs estimates is different and, it is hoped, of higher quality.

14. The two tariff rates, t^{hm} and t^{km} , in fact differ somewhat because each one is an aggregate, and the mix of exported clothing products subject to different tariff rates differ somewhat between Hong Kong and Korea.

15. Japan's average tariff rates on imports of textile and clothing products vary according to stage of processing. Average duties on fibers are relatively low, around 3 percent. The rate for yarns is 6.5 percent, and for woven fabrics, 9.5 percent. For made-up articles the rate is higher, around 10 percent, and for clothing still higher, 14 percent (the clothing tariff rate is very similar to the uniform rates of the EC and Sweden). These averages for Japan conceal significantly higher tariffs on some products of interest to developing countries, for example, tariffs on ramie yarn and yarn spun from silk are 12–15 percent, and on woven fabrics of ramie and jute, 20 percent (*Textile Asia*, Nov. 1987, p.94).

16. *Textile Asia*, Nov. 1987, quoting *Japan Economic Journal*, July 10, 1983, and *Japan Textile News Weekly*, March 15 and 22, 1985. MITI secured a similar pledge also from China and Pakistan.

17. *Textile Asia*, May 1987.

18. *Textile Asia*, Sept. 1988, under the headline "Futile restraints?"

19. *Japan Textile News*, May 1982, quoted in *Textile Asia*, Nov., 1987.

20. *Textile Asia*, Oct. 1987.

21. See Kim 1989.

22. On the "Public Sector Role in Textiles" see also "Korean Textiles: Case Study of an Industry in Transition," in World Bank 1987, Part II.

23. The Korean Ministry of Trade and Industry has also announced that it intends to promote overseas investment by Korean T&C firms as a remedy for protection, especially that in the United States. The most desirable developing countries suggested by the Ministry are Brazil, Argentina and Chile. *Textile Asia*, Feb. 1987, p. 50.

24. *Textile Asia*, Oct. 1987, p. 75.

25. See Raffaelli's paper and *Textile Asia*, Jan. 1988, pp. 11–13 for details on the CBI.

26. See *Textile Asia*, Oct. 1987, p. 76.

28. Korea also seems to export technology in the form of plants for production of man-made fibers; *Textile Asia*, Aug. 1988, p.111.

28. For an economic analysis of such market diversification schemes, see Bark and de Melo 1988 and 1989.

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8

India, The Multi-Fibre Arrangement and the Uruguay Round

Rajiv Kumar and Sri Ram Khanna

For more than 27 years, international trade in textiles has enjoyed exceptional treatment. Normal GATT rules do not apply. Instead the Multi-Fibre Arrangement (MFA), now in its fourth incarnation, has provided the framework for "expansion of international trade in textiles in an orderly manner." The MFA is undoubtedly the most celebrated case of a global market-sharing arrangement. The arrangement, it is sometimes argued, benefits all parties. Established exporters and newcomers are guaranteed market shares in importing developed countries. It is also argued that appropriation of quota rents and increases in unit value of exports compensates the exporting countries for possible loss of higher market shares under the arrangement. Importing countries have sufficient time to bring about structural adjustments in their industries. This acclaimed "real world" success of the MFA threatens to make it a model for international trade in other manufacturing sectors where "orderly expansion" is endangered by competitive entrants.

However, it is now increasingly evident: that rents may be partially absorbed in importing countries; that quotas may become binding at less than 100 percent utilization; that capacity expansion and new investment may be adversely affected by the presence of quotas which create demand-pessimism in exporting countries.

These issues—faced by the garment and textile industry in emerging competing countries like India, China, and Pakistan—have hitherto been largely ignored in the literature. The predominant focus of studies has so far been either the analysis of welfare loss in importing countries or

the concerns of established developing country exporters: raising unit values or strategic issues in quota negotiations, for example, price bargaining and quota utilization.

This paper attempts to fill a gap by examining the impact of the MFA on the evolution and performance of India's garment industry. The Indian garment (or ready-to-wear apparel) industry has grown entirely on the basis of export demand. This experience is in complete contrast to independent India's other manufacturing activity (except polished diamonds and gems). The next section describes the evolution of the garment industry in India and brings out the characteristic features of its organization and production structure. The relationship between the garment industry and the formal and informal segments of the cotton weaving and the man-made fiber industry is also discussed. The third section analyzes the volume, composition and direction of garment exports from India. The quota markets and quota utilization are also analyzed. The fourth section briefly describes the working of the quota allocation system in India. The actual effect of this system is also discussed. This then leads to a discussion of the generation and appropriation of quota rents, including estimates of export tariff equivalents. The last section combines our findings regarding the impact of the MFA on the Indian garment industry. It is expected that these findings will provide an empirical basis for a discussion of the future direction of international trade in textiles and garments.

The Indian Garment Industry

The garment industry in India is predominantly found in the "informal" sector. Being an informal, or unorganized sector, implies being outside the elaborate licensing, capacity control and regulatory regime which characterizes organized, large-scale industrial activity in India. Like all other unorganized or informal industries in India, data on capacity, production, employment, investment, wages, and the like are not readily available. This is true also of the powerloom sector, which supplies the bulk of the fibers and yarns for garment manufacture. Thus, all stages of processing—from weaving to tailoring and finishing—which constitute the garment export industry of India are not included in official industrial statistics. As a large number of garment units are unregistered, they go unreported even in the national accounts, and their performance is not monitored. The government has neither information nor an effective monitoring mechanism for an industry which is the second largest exporter (the first is gems and jewellery) and the highest net foreign exchange earner.

The data presented here has been collected over a number of years by the authors. A considerable part of the information on cost structure, investment requirements, level of mechanization and the like, was collected from personal interviews with 177 firms.¹ These firms were located in Delhi (128), Bombay (30) and Madras (19), which are the three major centers for the garment industry. Although these firms represented only 2.1 percent of the total population of registered garment exporters in the country (8,262), they constituted 13 percent of the larger exporters.² Their combined turnover was 21 percent by value and 22 percent by volume of total garment exports in 1986. The sample is representative of the industry except that it is biased in favor of larger manufacturer-exporters.

In contrast to the textile industry, which dates back to the interwar years, the garment industry in India is of comparatively recent origin. It was only in the 1960s that organized factory production started to grow in metropolitan centers like Bombay and Delhi. All these units were established in the small-scale industries sector, for which licensing and regulation procedures are less restrictive than for the large-scale industries. During 1965–66 there were only 120 firms exporting garments at a value of Rs.63.8 million. Their number had increased to 3,923 by 1976–77, with a total export revenue of Rs.2,625.5 million. The number of firms increased to 4,715 in 1985, but then almost doubled by 1986 and increased further to 11,149 in 1987. With total exports of Rs.18,594.3 million in 1987, the average exports per firm were Rs.1.6 million per annum.

The decentralized and small-scale nature of the garment industry is highlighted by the fact that on average each firm exported only US\$114,000 worth of garments every year. The average export price was Rs.50 per piece, and 370 million pieces were exported in 1987 (see Table 8–1). The above description understates the actual size of individual firms in the industry. The number of firms registered with the Apparel Export Promotion Council (AEPC) does not reflect the number of actual manufacturers and exporters in the country. A large number of these registered firms are merely addresses used to obtain a bigger share of the quotas, as is explained below. The extent of “paper registration” can be estimated by the fact that in our sample of 177 firms, the average annual turnover in 1986 was Rs.16.7 million. Firms which exported to quota markets and dealt with quota items (referred to as quota firms) had an average export turnover of Rs.15.3 million, while firms in our sample operating in nonquota markets had annual sales of Rs.24.4 million.³

This fragmentation or decentralization is further accentuated by the extensive use of “subcontracting” by large manufacturers-exporters. More than 88 percent of the firms have subcontracted fabrication work, while keeping cutting and finishing as in-house operations. The subcon-

Table 8-1 Indian Apparel Exports, 1965-88

| Year | No. of Export Firms | Value | | Volume | |
|---------|------------------------|----------|-------------|--------------|-------------|
| | | Rs mn | % Change | mn Pieces | % Change |
| 1965-66 | 120 | 63.83 | — | — | — |
| 1976-77 | 3,923 | 2,625.5 | — | — | — |
| 1980 | — | 4,534.9 | — | 141.3 | — |
| 1981 | — | 6,500.2 | 43.3 | 199.0 | 40.8 |
| 1982 | — | 6,335.7 | 2.5 | 187.0 | 6.0 |
| 1983 | 4,173 | 6,401.3 | 1.0 | 193.4 | 3.4 |
| 1984 | 4,715 | 8,501.0 | 32.8 | 230.5 | 19.2 |
| 1985 | — | 10,676.5 | 25.5 | 255.9 | 11.0 |
| 1986 | 8,262 | 13,231.2 | 23.9 | 300.8 | 17.7 |
| 1987 | 11,149 | 18,574.3 | 40.4 | 370.1 | 23.0 |
| 1988 | — | 21,486.4 | 15.7 | 396.7 | 7.2 |

Source: Apparel Export Promotion Council, New Delhi.

tractors are essentially labor contractors who employ a small workforce specialized in tailoring operations. All employment is temporary and at the lowest market wages—often at piece rate. The system of fabricators imparts a much needed flexibility to this industry. The fabricator employs tailors only when required and ensures that wages remain a variable cost. Capacity expansion is simply a matter of hiring extra hands and working multiple shifts. In off-seasons only a skeleton staff is retained, while others are laid off and go back to their villages. An exporter and even a manufacturer-exporter may work with as many as twenty such fabricators at a time, depending on the type of garments, styles and shipment deadlines. The most labor-intensive operations, accounting for as much as 21 percent of total unit cost and more than 45 percent of value added is thus subcontracted.⁴

When questioned, firms cited three predominant reasons for reliance on fabricators: (i) avoidance of labor problems and costs which take up a large part of managerial time and effort. All problems related to unionization are avoided; labor costs are minimized; and, more important, labor costs do not become part of fixed costs as in the organized industry; (ii) seasonal fluctuations can be dealt with at minimal overhead costs; (iii) flexibility when lead times are short, as is often the case with seasonal and fashion garments. The ability of firms to subcontract production and thereby have access to the informal labor market has been a crucial determinant of the rate of growth of this industry. Firms with higher growth rates have been successful in increasing their sub-contracted production from an average of 75,000 pieces per annum to 257,000 during the reference period of 1981-86.⁵

With an average outlay of Rs.0.89 million on plant and machinery per firm, the low capital intensity of the garment industry is clearly established. Twenty-four firms did not invest in plant and machinery, relying

completely on subcontracting. Capital per employee is Rs.5,043, which is US\$389 per employee and is among the lowest rates in the world garment industry. As could be expected, there is a wide variation between small and large firms, both in terms of capital outlay per establishment and in the use of powered machines.⁶ Predictably, larger firms, with greater use of powered machines, had higher productivity levels for all types of garments (Table 8-2).

Productivity gains were translated into pecuniary savings in cost of production per garment. These cost savings, given in Table 8-4, vary between Rs.0.61 and 0.99 per garment for the industry as a whole. These reflect a fairly small share (1.1-1.8 percent) of the average f.o.b. price of a garment for the firms concerned. These gains in productivity and production costs are perceived as illusory by a large section of the garment producers because higher levels of mechanization raise overhead costs on account of the inclusion of wages of skilled machine operators as part of fixed costs. Higher overheads necessitate fuller capacity utilization, even in off-seasons. Firms see these problems as additional managerial costs which nullify the gains from productivity. These perceptions have prevented a rapid diffusion of mechanized production systems in the industry. However, quality requirements can often force firms to use powered machines even when relative factor prices and other operating conditions yield a cost advantage for manual production systems.

Actual employment per firm varies from 46 to 349, with an average monthly wage of approximately Rs.677. The average hourly wage in this industry in India is estimated to be US\$0.25 for 1986-87. In spring 1987, hourly wage rates in Hong Kong, Taiwan, and the Republic of Korea were US\$1.93, 2.09 and 1.77, respectively.⁷ Despite relatively lower productivity levels, the wage advantage gives Indian firms a competitive edge in international markets. The garment industry, despite recent advances in computer-aided design and inventory control and automated cutting operations, will remain labor-intensive well into the next decade due to the difficulties in automation of sewing operations. Indian firms with access to informal labor markets through subcontracting and low wage rates for all categories (also for skilled labor) expect to benefit from a competitive advantage.

Before concluding this section, it is important to point out the nexus between the powerloom weaving sector and the garment industry.⁸ The powerloom sector, despite its fragmented nature, is currently the largest of the three weaving segments in the textile industry. During the 1980s it has overtaken the organized mill sector in terms of volume of production. To some extent, growth of this sector has been due to the shedding of weaving operations by the mills. The powerloom sector is completely decentralized and, therefore, enjoys all the concessions afforded to the

Table 8-2 Total Value of Installed Machines
(Rs 00,000)

| | Mean | Std. Dev. | Minimum | Maximum | NZO's | (n) | N.R. | Z |
|------------|-------|-----------|---------|---------|-------|-----|------|------|
| Region | | | | | | | | |
| Delhi | 4.23 | 14.42 | 0.02 | 140.00 | 21 | 99 | 8 | 1.68 |
| Bombay | 27.63 | 66.28 | 0.06 | 300.00 | 2 | 23 | 5 | 1.16 |
| Madras | 11.25 | 10.65 | 1.21 | 40.00 | 1 | 16 | 2 | 2.32 |
| Q/NQ Firms | | | | | | | | |
| Quota | 6.78 | 28.04 | 0.02 | 300.00 | 19 | 117 | 12 | 1.52 |
| Non-Quota | 21.01 | 41.35 | 0.03 | 140.00 | 5 | 21 | 3 | |
| Growth | 9.34 | 33.26 | 0.02 | 300.00 | 17 | 113 | 10 | 0.52 |
| Non-Growth | 7.13 | 14.52 | 0.03 | 70.00 | 7 | 25 | 5 | |
| Size | | | | | | | | |
| Small | 1.76 | 2.11 | 0.02 | 8.72 | 18 | 76 | 9 | 2.84 |
| Large | 17.75 | 44.35 | 0.10 | 300.00 | 6 | 62 | 6 | |
| All | 8.94 | 30.69 | 0.02 | 300.00 | 24 | 138 | 15 | |

NZO's: No. of firms responding with a zero.

(n): No. of responding firms.

N.R.: No. of non-responding firms.

Z: Z test value for difference of means.

Source: Based on the sample firms.

Table 8-3 Productivity on Manual (M) and Power (P) Machines
(Average No. of pieces per machine/day)

| Item | National | | Delhi | | Bombay | | Madras | |
|----------|----------|------|-------|------|--------|------|--------|-----|
| | M | P | M | P | M | P | M | P |
| Blouses | 9.4 | 12.7 | 9.3 | 12.3 | 10.1 | 16.0 | 8.5 | 8.7 |
| Dresses | 5.6 | 7.2 | 5.6 | 7.5 | 5.9 | 7.1 | 6.0 | 6.3 |
| Shirts | 8.2 | 10.3 | 8.0 | 11.3 | 9.1 | 10.3 | 8.4 | 7.9 |
| Skirts | 8.2 | 11.2 | 8.2 | 11.2 | 7.4 | 12.9 | 9.0 | 8.8 |
| Trousers | 6.0 | 7.8 | 6.0 | 7.8 | 6.7 | 8.9 | 5.2 | 6.0 |

Source: Computed from sample response.

small-scale sector in India. More important, perhaps, is the segment's access to the informal labor market, which permits it to avoid the costs of unionization and social security and permits flexibility in employment. Powerlooms are thus able to reduce fabric cost, which, as can be seen in Table 8-5, constitutes more than 50 percent of the total f.o.b. price of a garment. Reduction in fabric cost, through minimization of overheads and direct labor costs, as is achieved by powerlooms, is essential for maintaining profitability in garment exports.

Further, powerlooms permit a greater flexibility of designs and colors in fabrics for the garment producers. Being decentralized and individually operated, they can take up weaving of small batches of particular design, something which large integrated mills are both uninterested in and incapable of offering. Powerlooms permit garment producers to

Table 8-4 Labor Cost Savings Using Power Machines
(Per piece)

| Items | Currency | National | Delhi | Bombay | Small Firms | Large Firms |
|----------|----------|----------|--------|--------|-------------|-------------|
| Blouses | Rs | 0.68 | 0.77 | — | 0.50 | — |
| | \$ | (0.05) | (0.06) | — | (0.04) | — |
| Dresses | Rs | 0.98 | 1.34 | — | 1.14 | 0.83 |
| | \$ | (0.08) | (0.10) | — | (0.09) | (0.06) |
| Shirts | Rs | 0.61 | 1.07 | — | 0.86 | — |
| | \$ | (0.05) | (0.08) | — | (0.07) | — |
| Skirts | Rs | 0.80 | 0.96 | — | 0.73 | 0.98 |
| | \$ | (0.06) | (0.07) | — | (0.06) | (0.08) |
| Trousers | Rs | 0.94 | 1.13 | 0.97 | 0.86 | 0.97 |
| | \$ | (0.07) | (0.09) | (0.08) | (0.07) | (0.08) |

Note: US\$ = Rs 12.962 during 1987. Wages for floor shop workers based on 26 day month. Computed from sample response.

Table 8-5 Cost Structure of Garment Production
(Percentage share)

| | Fabrication | Materials | Finishing | Overheads |
|---------|-------------|-----------|-----------|-----------|
| Mean | 21.53 | 34.34 | 8.91 | 15.08 |
| (S.D.) | 6.85 | 8.84 | 4.75 | 6.38 |
| Minimum | 8 | 25 | 2 | 4 |
| Maximum | 50 | 80 | 30 | 59 |

Note: Based on responses from 171 firms, in the sample.

offer a larger range of designs and colors without incurring the additional fabric cost. The fact that Indian garment exporters have so far been confined to middle-level fabrics in terms of fabric quality (measured in counts and fineness) also suited the growth of this nexus. Powerlooms, embodying inferior technology, cannot handle higher counts and finer yarns.

We can now piece together a broad picture of the organizational and production structure of the Indian garment industry. First, the industry is of recent origin and has grown predominantly on the basis of export demand. This characteristic is in sharp contrast to all other industries in the country except perhaps diamond cutting and polishing. Second, the industry has grown mainly in the small-scale sector. Although there are a few large manufacturers-exporters, even these have relied heavily on the decentralized fabricators for their production. Third, the industry is mainly concentrated in the three metropolitan cities of Bombay, Delhi and Madras. This is a result of the industry's requirement of air freight-ing its exports and also its critical dependence on an efficient communication system and exposure to international trends and markets. Investment levels of US\$389 per worker are perhaps the lowest in the global garment industry. Fourth, two distinct production systems, manual and mechanized, coexist in the industry. Diffusion of mechanization is slow because productivity gains and savings in production costs are off-set by labor-related diseconomies of scale and by an increase in managerial costs. Fifth, wage levels in the garment industry, especially with its access to informal labor markets through fabricators and powerlooms, are currently among the lowest in the world. This wage advantage has afforded a competitive edge to the Indian industry which is likely to continue well into the next decade.

India's Garment Exports

A remarkably high growth rate of garment exports has been maintained over the past two decades. Consequently, the share of garments in total Indian exports increased from 0.6 percent in 1966 to 12 percent in 1987.

Table 8-6 Share of Apparel and Textiles in India's Total Exports

| | 1966 | | 1969-70 | | 1973-74 | | 1977-78 | |
|-------------------------------|------------------|--------------|------------------|--------------|------------------|--------------|------------------|--------------|
| | Value (Rs mn) | Share (%) | Value (Rs mn) | Share (%) | Value (Rs mn) | Share (%) | Value (Rs mn) | Share (%) |
| Apparel | 64.1 | 0.6 | 216.1 | 1.5 | 954.5 | 3.8 | 3,294.6 | 6.1 |
| Textiles, made-ups, and yarns | 818.9 | 8.2 | 1,402.6 | 10.0 | 3,045.1 | 12.3 | 3,771.7 | 7.0 |
| All Exports | 9,943.0 | 100.0 | 14,086.9 | 100.0 | 24,781.6 | 100.0 | 53,631.8 | 100.0 |

| | 1983-84 | | 1984-85 | | 1986-87 | | 1987-88 | |
|-------------------------------|------------------|--------------|------------------|--------------|------------------|--------------|------------------|--------------|
| | Value (Rs mn) | Share (%) | Value (Rs mn) | Share (%) | Value (Rs mn) | Share (%) | Value (Rs mn) | Share (%) |
| Apparel | 6,072 | 6.15 | 8,373 | 7.28 | 15,090 | 12.0 | 20,250 | 12.88 |
| Textiles, made-ups, and yarns | 43.95 | 4.45 | 5957 | 5.17 | 7846 | 6.24 | — | — |
| All Exports | 98,721 | 100.0 | 114,937 | 100.0 | 125,666 | 100.0 | 15,794 | 100.0 |

Note: Average exchange rates: \$1 = Rs 10.099 in 1983, Rs 11.363 in 1984, Rs 12.369 in 1985, Rs 12.611 in 1986, Rs 12.962 in 1987 and Rs 13.043 in the first quarter of 1988.
Source: Government of India.

During this same period the share of garments in the total exports from the textile sector went up from 7.2 percent in 1966 to 65.8 percent in 1987 (Table 8-6). At an annual compound growth rate of 23.3 percent, garment exports were one of the two dominant product categories in Indian exports during the 1970s and 1980s.⁹

Value added in garment exports was, however, significantly higher than in gems and jewellery, whose exports from India increased at similar rates during the two decades. This higher value added emerged from the near exclusive reliance on cotton as the fabric used for garments (Table 8-7). Cotton's share has fluctuated between 85 and 90 percent by volume during the 1980s.¹⁰

Table 8-7 Fiberwise Share of Apparel Exports to 16 Quota Markets (Percent)

| Fiber | 1981 | 1982 | 1983 | 1984 | 1985 |
|-----------|-------|-------|-------|-------|-------|
| Cotton | 88.0 | 85.0 | 90.3 | 89.3 | 86.8 |
| Synthetic | 6.0 | 7.6 | 6.6 | 7.5 | 10.4 |
| Woolen | 6.0 | 7.4 | 3.0 | 3.1 | 2.7 |
| Total | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |

Source: Apparel Export Promotion Council (India).

Exports of garments were heavily concentrated in 21 importing country markets, which absorbed as much as 97.4 percent by value and 96.8 percent by volume of total garment exports from India (Table 8-8). In 16 out of these 21 major markets Indian exports were subjected to quota restrictions. These 16 "quota countries" accounted for 78.2 and 83.3 percent of total exports in 1986 and 1987, respectively.¹¹

Bilateral MFA agreements have covered an increasing share of total garment exports. Table 8-9 demonstrates that in the U.S. and EC markets, quotas covered 95.6 and 99.6 percent of Indian garment exports in 1987. These two markets are by far the two most important export markets. Greater access to these markets will, therefore, be a critical determinant in the future export growth of this industry.

The quota utilization levels in various markets during the current decade are given in Table 8-10. As a continuation of the performance during the earlier decade, quotas in EC markets were not filled between 1980 and 1985. During the first half of this decade, quotas were fully utilized in Sweden in 1981, 1983, 1985; in the United States from 1983 to 1985; and in Canada only in 1985.

Reasons for quota underutilization are found from an analysis of quota utilization data for various products—specific categories in indi-

Table 8-8 Direction of Apparel Exports (1980-87)

| | | 1980 | 1981 | 1982 | 1983 | 1984 | 1985 | 1986 | 1987 |
|---------------------|---|---------|---------|---------|---------|---------|----------|----------|----------|
| Global | V | 4,534.9 | 6,500.2 | 6,335.7 | 6,401.3 | 8,501.0 | 10,676.5 | 13,231.2 | 18,574.3 |
| | Q | (141.3) | (199.0) | (187.0) | (193.4) | (230.5) | (255.9) | (300.8) | (370.1) |
| All quota countries | V | 3,554.9 | 4,700.6 | 4,168.6 | 4,856.1 | 6,401.1 | 7,811.5 | 10,350.9 | 15,285.6 |
| | Q | (115.3) | (134.9) | (127.2) | (145.1) | (176.2) | (192.9) | (236.1) | (299.7) |
| United States | V | 972.5 | 1,375.6 | 1,384.8 | 2,258.8 | 2,914.6 | 3,464.1 | 4,403.8 | 6,048.4 |
| | Q | (37.2) | (48.4) | (48.8) | (70.1) | (78.5) | (74.0) | (83.8) | (102.0) |
| EEC | V | 2,353.4 | 2,869.1 | 2,381.9 | 2,167.0 | 2,809.4 | 3,425.7 | 5,032.6 | 8,120.9 |
| | Q | (70.2) | (73.9) | (67.1) | (63.1) | (80.0) | (97.4) | (133.5) | (175.4) |
| Norway | V | 36.2 | 44.8 | 35.0 | 32.4 | 49.9 | 62.4 | 65.99 | 89.28 |
| | Q | (1.1) | (1.2) | (1.0) | (0.9) | (1.2) | (1.5) | (1.2) | (1.6) |
| Sweden | V | 108.1 | 142.3 | 128.8 | 131.9 | 160.3 | 182.3 | 224.3 | 297.7 |
| | Q | (3.9) | (4.1) | (3.5) | (3.4) | (4.3) | (4.3) | (4.6) | (5.6) |
| Finland | V | 9.8 | 31.1 | 39.6 | 25.6 | 30.2 | 41.5 | 71.5 | 89.1 |
| | Q | (0.3) | (0.8) | (1.8) | (1.2) | (1.0) | (1.2) | (1.8) | (2.4) |
| Austria | V | 20.5 | 61.1 | 71.2 | 58.1 | 51.7 | 49.0 | 73.4 | 130.9 |
| | Q | (0.6) | (1.4) | (1.6) | (1.6) | (1.2) | (1.1) | (1.7) | (3.4) |
| Canada | V | 54.4 | 173.4 | 162.3 | 214.6 | 435.1 | 586.6 | 479.4 | 509.2 |
| | Q | (1.9) | (5.2) | (4.4) | (5.7) | (11.0) | (13.3) | (9.4) | (9.4) |

Table 8-8 (continued)

| | | 1980 | 1981 | 1982 | 1983 | 1984 | 1985 | 1986 | 1987 |
|-------------------------|---|--------|---------|---------|---------|---------|---------|---------|---------|
| All non-quota countries | V | 780.0 | 1,799.7 | 2,057.7 | 1,545.2 | 2,099.7 | 2,865.0 | 2,880.3 | 3288.7 |
| | Q | (26.0) | (64.1) | (59.8) | (48.3) | (54.4) | (63.0) | (64.7) | (70.4) |
| Australia | V | NA | 98.9 | 130.1 | 104.5 | 208.6 | 175.3 | 169.0 | 225.4 |
| | Q | NA | (2.9) | (3.0) | (2.3) | (3.1) | (3.0) | (3.0) | (3.6) |
| Japan | V | NA | 156.9 | 183.3 | 143.2 | 236.5 | 404.5 | 333.0 | 376.3 |
| | Q | NA | (5.0) | (5.3) | (4.1) | (6.2) | (9.6) | (8.2) | (7.9) |
| Switzerland | V | NA | 213.2 | 179.0 | 203.3 | 176.9 | 196.0 | 320.3 | 439.6 |
| | Q | NA | (16.6) | (10.1) | (14.5) | (10.4) | (6.6) | (10.3) | (13.7) |
| USSR | V | NA | 952.5 | 1,171.4 | 732.7 | 1,057.0 | 1,725.9 | 1,568.4 | 1,663.8 |
| | Q | NA | (25.6) | (25.9) | (14.2) | (22.2) | (32.9) | (29.3) | (28.2) |
| Hungary | V | NA | 18.2 | 30.9 | 57.5 | 70.2 | 80.7 | 77.0 | 44.9 |
| | Q | NA | (1.4) | (2.7) | (3.1) | (2.5) | (2.7) | (2.1) | (1.0) |

Notes: V = in million Rs.

Q = in million pcs.

Source: AEPC annual data 1980 to 1988.

Table 8-9 Composition of Apparel Exports: Quantum Share of Items Covered under Bilaterals (Percent)

| Market | 1981 | 1982 | 1983 | 1984 | 1985 | 1986 | 1987 |
|-----------------------|------|------|-------|-------|------|-------|------|
| United States | 79.4 | 84.9 | 97.8 | 96.0 | 92.7 | 96.2 | 95.6 |
| EEC | 92.3 | 96.4 | 99.3 | 99.7 | 99.7 | 99.8 | 99.6 |
| Germany, Fed. Rep. of | 92.8 | 96.3 | 99.9 | 99.8 | 99.9 | 99.9 | 99.8 |
| France | 95.0 | 97.0 | 99.5 | 99.9 | 99.5 | 99.9 | 99.9 |
| Italy | 88.3 | 88.8 | 95.6 | 99.3 | 99.8 | 99.8 | 99.9 |
| Benelux | 96.3 | 97.7 | 99.8 | 100.0 | 99.9 | 100.0 | 99.9 |
| Denmark | 95.9 | 98.1 | 99.9 | 99.9 | 99.9 | 99.9 | 99.9 |
| United Kingdom | 90.0 | 98.3 | 99.6 | 99.6 | 99.4 | 99.6 | 99.6 |
| Ireland | 98.5 | 91.8 | 99.3 | 100.0 | 99.8 | 99.7 | 99.9 |
| Greece | 92.4 | 93.9 | 100.0 | 100.0 | 98.3 | 96.9 | 43.8 |
| Spain | OBA | OBA | OBA | OBA | OBA | OBA | 98.4 |
| Portugal | OBA | OBA | OBA | OBA | OBA | OBA | 64.7 |
| Norway | 98.5 | OBA | OBA | OBA | 40.4 | 94.0 | 69.1 |
| Sweden | 99.7 | 99.6 | 97.2 | 99.4 | 99.3 | 98.8 | 92.2 |
| Finland | 33.8 | 21.4 | 83.3 | 83.7 | 75.1 | 72.3 | 57.8 |
| Austria* | 37.8 | 43.9 | 15.7 | 19.5 | 22.0 | 17.2 | 15.9 |
| Canada | 87.8 | 92.4 | 89.8 | 67.0 | 64.3 | 69.9 | 85.4 |

Note: OBA: Outside Bilateral Agreement.

a. Excludes items under statistical surveillance.

Source: Apparel Export Promotion Council, New Delhi.

vidual markets. As can be seen in Table 8-11, five garment categories have consistently accounted for more than 75 percent of total garment exports from India.¹² Export of these five categories faced binding constraints in all years and in nearly all the markets. In the EC markets, other garment categories (like categories 17, 21, and 24) are of little interest to Indian exporters, and hence quotas were not filled. Thus, while aggregate quota utilization rates may appear to be below 100 percent (see Table 8-12), Indian firms without doubt suffer from binding constraints in those categories where they are competitive. In the U.S. market the overall ceiling imposed on Group II, referred to as "yardage," has always been reached since 1983. Quotas available in individual categories cannot be utilized once this overall ceiling has been reached. The disaggregated level of specification and administration of garment quotas resulted in the anomalous position of underutilized quotas in several categories existing simultaneously with binding constraints on further expansion of export from India.¹³

The provision of "swing" was expected to impart a degree of flexibility to the quota regime under the MFA and to ameliorate the anomaly

Table 8-10 Market-wise Aggregate Quota Utilizations
(Percent)

| Market | 1980 | 1981 | 1982 | 1983 | 1984 | 1985 | 1986 | 1987 |
|--------------------------|------|-------|------|-------|-------|-------|-------|-------|
| United States | 78.1 | 75.5 | 69.7 | 109.8 | 102.1 | 100.2 | 109.7 | 116.7 |
| Germany, Fed. Rep. of | 82.8 | 78.6 | 73.2 | 53.0 | 54.8 | 74.8 | 102.1 | 109.9 |
| France | 94.9 | 88.5 | 72.0 | 57.7 | 59.9 | 70.6 | 92.7 | 106.7 |
| Italy | 79.9 | 63.1 | 44.9 | 51.2 | 40.0 | 51.4 | 88.3 | 105.6 |
| Benelux | 68.3 | 62.4 | 57.1 | 42.9 | 55.3 | 66.3 | 86.0 | 104.9 |
| Denmark | 87.4 | 86.6 | 83.8 | 76.4 | 87.9 | 89.1 | 108.1 | 99.2 |
| United Kingdom | 52.2 | 55.0 | 64.5 | 56.6 | 75.5 | 68.3 | 74.8 | 107.8 |
| Ireland | 40.0 | 64.9 | 56.5 | 51.8 | 58.1 | 68.0 | 73.5 | 105.7 |
| Greece | OBA | 66.7 | 41.4 | 37.2 | 63.2 | 76.3 | 61.8 | 35.5 |
| EEC | 70.5 | 61.4 | 65.3 | 53.9 | 61.2 | 69.1 | 88.8 | 106.7 |
| Sweden | 99.8 | 105.1 | 87.7 | 74.8 | 101.8 | 100.9 | 105.7 | 116.9 |
| Finland | 72.0 | 53.2 | 76.7 | 63.6 | 54.4 | 56.4 | 78.5 | 77.8 |
| Austria | 70.3 | 55.2 | 67.6 | 95.1 | 89.3 | 88.6 | 99.6 | 108.4 |
| Canada | 68.6 | 75.3 | 63.3 | 73.6 | 98.9 | 108.0 | 78.7 | 91.3 |
| Norway | 27.8 | 34.5 | OBA | OBA | OBA | 91.6 | 92.3 | 101.0 |
| All | — | — | — | 73.2 | 76.4 | 79.8 | — | — |

Note: OBA: Outside Bilateral Agreement.

Sources: 1) LS US Q No. 812 dt. 27.7.84. 2) LS US Q No. 3839 dt. 19.4.85. 3) *Handbook of Export Statistics for Garments and Knitwear* (1980-82), AEPC, New Delhi, and AEPC unpublished statistical tables for 1983, 1984, 1985, 1986 and 1987. 4) Data for USA (1983 to 1987) pertains to Group II utilization.

described above. For two reasons the swing provision has had only a marginal impact on binding quota constraints. First, only a 10 percent swing across categories is permitted. Second, the swing provision takes effect only after the annual quota levels have been exhausted. Exhaustion of quotas within a subperiod is more the rule in seasonal cotton garments. Swings do not increase quota availability during these subperiods when they are actually required. Their only result is under-utilized quotas at the end of the entire period.¹⁴

Even when discounting the factors which contributed to "quota-underutilization," it has been unambiguously demonstrated that it was supply- rather than demand-side factors which were responsible for a slack export performance during the 1970s and first half of the 1980s. (See Kumar and others 1988.) During the period 1970-84, the annual rate of growth of 6 percent in quota ceilings was adequate for garment exports from India.

Table 8-11 Share of Five Primary Products^a in India's Total Apparel Exports to Quota Markets, 1980-85
(Percent)

| Year | 16 Quotas Countries ^b | | United States and EC(10) Only | |
|------|----------------------------------|--------------|-------------------------------|--------------|
| | Volume Shares | Value Shares | Volume Shares | Value Shares |
| 1980 | 79.4 | 78.2 | 79.3 | 77.4 |
| 1981 | 71.0 | 71.3 | 70.7 | 71.1 |
| 1982 | 69.1 | 75.6 | 72.6 | 76.4 |
| 1983 | 74.1 | 73.6 | 74.3 | 73.6 |
| 1984 | 65.8 | 66.6 | 66.3 | 67.3 |
| 1985 | 64.9 | 70.0 | 65.6 | 70.6 |

a. Blouses and shirts, ladies' dresses, skirts and trousers:

b. United States, EC(10), Norway, Sweden, Finland, Austria, Canada.

Source: Derived from official data.

Conditions have markedly changed during the second half of the 1980s, however. Quota utilization in the U.S. market was 109.7 and 116.7 percent in 1986 and 1987. In the EC market, despite very low utilization levels in Greece, quotas were utilized up to 88.8 and 106.7 percent in 1986 and 1987, respectively. From tentative estimates prepared by the AEPC, it is evident that quotas were binding during 1988 as well.

In the second half of the 1980s, Indian garment exporters, perhaps for the first time, have experienced the full impact of the MFA's restrictions. Firms, not certain of quota availability, have given up plans for capacity expansion and market development. Uncertainty has further reinforced the tendency to decentralize and minimize expansion of in-house capacity, which adds to overhead and fixed costs. This tendency also adversely affects the rate of mechanization and technological upgrading in the industry since firms minimize investment in in-house plant equipment. Quotas imposed by the current MFA can, therefore, be seen to have adversely affected both the current level of exports and investment and future growth of the industry. Clearly the MFA provides misleading signals to different segments of the global garment industry and creates long-term distortions in the exploitation of countries' comparative and competitive advantage in textiles and garments.

Quality upgrading and increases in unit values are arguably the beneficial results of the MFA. The two principal sources of quality upgrading are fabric quality and complexity of, or improvement in, workmanship. In our sample, 62 percent of firms reported fabric improvement. However, this may not have been reflected in higher fabric price. Firms exporting to quota markets apparently registered a smaller

Table 8-12 Category-wise Quota Utilizations
(Percent)

| Country/Category | 1980 | 1981 | 1982 | 1983 | 1984 | 1985 |
|------------------------------|-------------|-------------|-------------|--------------|-------------|-------------|
| United States | | | | | | |
| 1. 334 | NS | NS | NS | NS | NS | 81.7 |
| 2. 335 | NS | NS | NS | 107.4 | 96.7 | 97.8 |
| 3. 336 | 96.6 | 89.0 | 84.6 | 112.7 | 94.4 | 97.0 |
| 4. 337 | NS | NS | NS | NS | NS | 66.0 |
| 5. 338-40 | 40.7 | 59.1 | 59.5 | 84.8 | 99.3 | 97.9 |
| 6. 341 | 92.8 | 79.7 | 71.4 | 112.8 | 98.0 | 91.4 |
| 7. 342 | NS | NS | NS | 109.5 | 104.2 | 97.7 |
| 8. 347-48 | 91.9 | 114.1 | 91.7 | 111.8 | 102.9 | 94.6 |
| 9. 350 | NS | NS | NS | NS | NS | 75.5 |
| 10. 359 (J) | NS | NS | NS | NS | NS | 72.3 |
| 11. 641 | — | — | — | — | — | — |
| Total Sensitive Items | 78.1 | 75.6 | 69.5 | 105.3 | 98.8 | 94.1 |
| EEC | | | | | | |
| 1. 4 | 107.3 | 103.1 | 91.7 | 98.3 | 103.4 | 107.7 |
| 2. 6 | 82.4 | 85.3 | 78.0 | 51.5 | 84.4 | 89.3 |
| 3. 7 | 73.1 | 78.0 | 75.7 | 53.6 | 45.9 | 54.7 |
| 4. 8 | 50.6 | 40.3 | 51.3 | 42.6 | 73.5 | 92.1 |
| 5. 15-B | 85.2 | 73.8 | 68.7 | 43.0 | 51.5 | 53.8 |
| 6. 17 | 87.2 | 28.7 | 16.9 | 27.4 | 24.8 | 20.5 |
| 7. 21 | 14.5 | 17.1 | 12.8 | 13.3 | 16.2 | 18.8 |
| 8. 25 | NR | 47.5 | 20.0 | 8.6 | 18.0 | 31.8 |
| 9. 26 | 102.4 | 99.1 | 69.2 | 63.6 | 59.7 | 45.9 |
| 10. 27 | 94.2 | 104.0 | 87.2 | 67.3 | 60.5 | 57.3 |
| 11. 29 | 88.1 | 118.1 | 90.6 | 30.1 | 28.5 | 42.4 |
| 12. 30-A | NR | 69.5 | 19.7 | 30.8 | 18.3 | 16.5 |
| 13. 30-B | 4.5 | 4.1 | 1.4 | NR | NR | NR |
| 14. 68 | NR | 0.0 | 0.0 | NR | NR | NR |

Note: NS: Non-Sensitive category and not subject to category ceilings.

Source: 1) LS US Q No. 8-2 dt. 27.7.84 2) LS US Q No. 3839 dt. 19.4.85 3) *Handbook of Export Statistics for Garments and Knitwear (1980-82)*, AEPC, New Delhi.

increase in fabric price of Rs.4.85 per meter as compared to Rs.5.24 per meter for firms exporting to the non-MFA markets of Japan, Australia and the U.S.S.R. It is not clear whether quotas contributed to fabric improvement and, if so, to what extent.

Nearly 83 percent of the sample firms reported improvement in finishing operations and other aspects of workmanship.¹⁵ The improve-

ments took the form of better quality control mechanisms: installation of dry cleaning and washing plants; use of vacuum tables; fusing; button hole attachments on sewing machines, and the like.

A number of larger firms now use the services of foreign designers and have changed from ethnic Indian to Western designs and motifs. Some other quality changes like—handcrafting, embroidering and use of preshrunk fabrics—have also taken place. Only 31 of our 177 sample firms (15.7 percent) attempted to generate higher unit values through export of garments under their own brand names. Even these firms, however, exported only a fraction of their total exports under their own brand names.

Overall, therefore, there is as yet no clear evidence that the MFA quotas have induced significant quality upgrading or higher unit values of garment exports from India. Whatever quality upgrading has occurred appears to be a result of the maturing and strengthening of the industry, which has resulted in quality upgrading of all garment exports. Nevertheless, given that the MFA quotas have become binding only since the mid 1980s, it may be too early for significant quota-induced upgrading to have been generated by the industry.

One other effect of binding MFA quotas is to induce firms to relocate production to countries not currently facing quotas. Of the 177 sample firms, 27 attempted such relocations, with half of them moving their plants to Nepal.¹⁶ Generally speaking, it was firms that secured bulk orders from the United States who attempted such relocations. However, relocation meant only a temporary advantage because importing countries (in this case the United States) soon extended the Indian quota coverage to the country where these capacities are relocated (Nepal). In the case of Indian garment exports, this was a marginal phenomenon and was arrested by imposition of quotas on Nepal and, more importantly, also by production and coordination problems experienced by Indian firms operating out of neighboring countries.

A quota-free global trading system in garments was unambiguously preferred by 77 percent of the respondents. Once bilateral quotas were replaced by global quotas, 48 percent expected to increase their exports, but 29 percent expected a regime of global import quotas to affect their performance adversely. Indian firms did not perceive the three Asian majors—Hong Kong, Republic of Korea and Taiwan—as close competitors. They were seen as operating in a different market segment. However, firms from China, Pakistan, Bangladesh and Sri Lanka were seen to be closely competitive as they produce and export in the same market segments as Indian exporters. Based on this competitive perception, Indian garment exporters displayed strong optimism for their prospects in a quota-free system.

This optimism was based on the firms' perception that India has a competitive edge over the others (including China) in complicated tailored, embroidered, handcrafted or ornamental styles which use fine trimmings and require a lot of manual skills. The nexus with powerlooms has enabled Indian garment exporters to specialize in small production runs for each style. The powerloom and, to some extent, the handloom sectors have the flexibility to adapt fashion changes in fabrics at relatively short notice. Moreover, they can viably supply quantities ranging from 300–3,000 meters.

Particular mention can also be made of yard dyed fabrics (made a special target for subceilings by the United States in the MFA IV), novelty fabrics, checks and stripes and dobbies. Given the experience so far under the MFA IV, Indian garment exporters saw themselves as benefiting from any change toward a quota-free system in these products. However, Indian firms accepted their competitive weakness vis-à-vis exporters from the "Asian Majors" and China in simple apparel with bulk-size orders.

Quotas, Rents and Export Tariff Equivalents

The economic effects of quotas and other quantitative restrictions on importing countries have been examined in great detail in the literature. In some of the studies, overall economic effects have been disaggregated into: (i) impact on levels of production and consumption in the protected market and the resultant welfare loss; (ii) trade diversion effects; (iii) upgrading effects and changes in the commodity composition of trade as a result of exporters trying to increase unit values; and (iv) generation of rent and its distribution between importers and exporters. However, there are few, if any, detailed studies on the impact of quotas on the exporting country, and estimates of export tariff equivalences at the exporting end.

In this section an attempt is made to examine in some detail the working of the quota system in India, to find out its effects and estimate the rents which are generated in the industry as a result of the binding quotas.

The Quota Allocation Regime

In India, garment quotas are administered by the AEPC, which is a quasi-governmental body under the Ministry of Commerce. Quotas are allocated on a "closed" and an "open" quota system.

In the "closed" quota allocation system, which accounts for 80 percent of the total quota available, quota are granted on the basis of past

performance. Individual firms are entitled to quota as a pro rata share of exports undertaken in the previous two years. Other types of reservations exist for manufacturer-exporters, public sector exporters, organizations promoted by state governments and so forth. Therefore, within the closed quota allocation system, there is a further disaggregation into subcategories which is created solely by the domestic quota distribution policy. This fragmentation of quota categories, which to start with are already highly specific and narrowly defined, creates further problems for filling quotas. Even in the closed system, some quotas remain unutilized as a result of these multiple categories.

In the "open" quota allocation system, quotas were nominally distributed on a first-come-first-served basis. Given the excess demand for these quotas, applications for volumes larger than those available were received on the opening day. The system has consequently been converted effectively into a quota rationing system. This rationing applied to each of the three quota periods during a calendar year.

Firms with export orders, backed with confirmed and irrevocable letters of credit, applied to the AEPC for quotas under this open quota allocation system. For the most sought after, "primary," categories, demand as cumulated from firms' applications was always higher than the total volume of quotas available. The rationing criterion used to allocate the quota among firms was the "cut-off" price. For each quota category and quota period, the AEPC determined a unit price for a particular garment. This price was used as a reference price for allocation of the quota. Firms citing a "unit price" below this cut-off price were refused quota. The cut-off unit price was calculated to balance demand by firms quoting a higher unit price with the quota available. It was, in effect, a market-clearing price in a situation where supply of quotas was fixed and total demand was unknown, both to individual firms and to the price determining authority (AEPC).

To ensure quotas being allocated to themselves, the exporters adopted two methods. First, they submitted multiple applications for quotas for the same order. Since this was not officially permitted, exporters registered several firms under different names. This resulted in a proliferation of "paper firms," as mentioned above. Multiple applications, quoting different unit prices, improved firms' chances of receiving quota. This practice of multiple applications was also motivated by speculative objectives. Second, the firms inflated their unit prices in the applications to anticipate the cut-off price.

As expected, firms with quota entitlements based on past performance proved to be more able to handle the unit price mechanism in the quota allocation system. They effectively cross-subsidized their sales under the open system through the closed quota allocation system. An importer who agreed to open an irrevocable letter of credit at an artificially high

price for goods under the open, first-come-first-served system was compensated through price reductions in the closed quota allocation system. It could, therefore, be quite revealing to examine the unit prices of shipments of similar garments under the closed and open quota allocation systems by the same firm. For obvious reasons, such information was not available.

In our view it is important to understand the implication of this "cross-subsidy" between exports under the open and closed quota systems for analyzing the distribution of quota rents between exporters and importers. It is often argued that in a system where quotas are auctioned amongst the exporters, all quota rents are retained with the exporting country. However, this may not always be true. It should be recognized that the cut-off price and quoting of different unit prices by individual firms in their applications for open quota closely approximated an auction system. This is true because the firms submitted closed bids on the basis on which the cut-off price was determined. With access to closed quota transactions, the rents generated in the "open quota" allocation system through sales agreements at higher unit prices were shared between the exporters and importers. As long as a parallel transaction channel existed, rents could be shared even if quotas were allocated in this imitation auction way. It may be clarified here that the cut-off price already includes, for reasons described above, an element of quota rent. The "cut-off" price, therefore, is not simply a cost-plus price.

The AEPC also established an annual "floor price" for every garment category. The floor price reflected the minimum cost of production of a particular category of garments as estimated by the AEPC, allowing for a normal rate of return. The floor price was established by the AEPC to prevent exporting firms from grossly underinvoicing their sales. As is well established, there is a strong motivation for firms in an economy with rigid foreign exchange controls and an over-valued exchange rate to underinvoice their exports and over invoice their imports. The difference in actual price and invoice price generates unaccounted foreign exchange earnings. The floor price thus approximates the minimum cost of production inclusive of returns to capital. As is argued below, the excess of unit price over this floor price can be seen to reflect the twin effects of quality upgrading and quota rents.

The main features of the quota allocation system in India can now be summarized as follows. First, the system further disaggregates the quota categories already defined very narrowly by the importing countries. As a result of various special reservations and classifications by India, there currently exist several hundred quota categories for garment exports from India. Quite naturally, a vast quota administering bureaucracy with its own vested interest has come to exist. Second, the excessive

disaggregation of quota categories has led to underutilization of quotas since the existing informal transfer mechanisms have their limitations and have not been able to ensure efficiency. Third, firms with access to quotas on the basis of past performance regularly use allocation under this system to cross-subsidize their sales under the open quota allocation system. Fourth, unit prices of shipments based on open quota included both an element of speculation and an element of cross-subsidization. Fifth, the cut-off price established by the AEPC to balance quota supply and demand incorporates a rent element. Sixth, the cut-off price, in conjunction with other aspects of the quota allocation system, resulted in a proliferation of ghost firms established with the exclusive objective of cornering a larger share of the quotas in the first-come-first-served quota allocation system. Finally, the AEPC, a quasi-governmental agency, also established a floor price which is stipulated for every category in order to minimize the incidence of underinvoicing.

Quota Rents and Export Tariff Equivalents

Firms with confirmed export orders but lacking quotas have entered the market for past performance quotas. Nearly 72 percent of our sample firms reported having either bought or sold quotas in that market. Twenty-one percent denied having ever traded in quotas, while the rest refused to discuss the subject. All types of firms traded in quotas. Fully developed quota markets with quota agents have emerged in the three metropolitan areas. Quota prices of different categories have been quoted daily and reported freely by the agents, but were not published. Quota transactions were undertaken by firms on an average about five times a year. Large firms, with higher past performance quota (PPQ) holdings, bought and sold quotas about six times per year, as opposed to three times a year for small firms. The average volume of trade in quotas was 45,558 pieces per firm per year and the range was between 1,000 and 300,000 pieces per firm a year. Low unit value garments such as cotton knitwear and children's wear appeared to be relatively rare in quota trading. Quota prices for these garments tend to be relatively high compared to unit values.

Up to 1987, all quota trade was conducted on the "black market," although the AEPC permitted transfer of past performance quotas. Quota prices were, however, a closely guarded secret and invisible to the official machinery. While the AEPC permitted transfer of quotas, it did not require the seller to quote a price. Moreover, holders of past performance quotas preferred to get into "Third Party Export" transactions. In such a transaction, a firm having a confirmed export order entered into an agreement with a past performance quota (PPQ) holder.

The importer opened the letter of credit in favor of the PPQ holder. While the quota purchasing firm actually undertook the production and export, these activities were recorded in the official customs documents as being undertaken by the PPQ holder. Consequently, the PPQ holder did not lose his quota entitlement for future periods, and the producer was able to undertake exports. The benefits from all domestic incentives schemes, like duty drawback and import replenishment, accrued to the PPQ holder. Such third party transactions were not permitted by the AEPC. The third-party quota transfer price was generally between 33 and 60 percent of the quota price in legal transactions. Both prices were simultaneously quoted by the agents. Firms with large past performance quota holdings can, and do, earn large incomes merely by entering into third-party transactions and effectively withdraw as manufacturers. The emergence of such a "quota rentier" class is, in our view, harmful to the future growth of the industry.

The large PPQ holders have demanded a ban on quota transfers undertaken along with the right to transfer future PPQ entitlements. Such transfers are currently permitted by the government. Large PPQ holders would prefer that this channel be closed to new firms, since this would force new firms to buy quotas only on the basis of third-party transfer from PPQ holders. As a result, third-party transfers would have to be declared legal, and they would secure future quota rents for today's PPQ holders and act as a strong barrier to entry of new firms. It would enable today's PPQ holders to earn monopoly rents. In 1986, according to response from our sample, 60 percent of quota firms and 20.7 percent of nonquota firms were resorting to third-party transactions.

Such quota sales by PPQ holders may also have contributed to quota underutilization. PPQ holders were inclined to hold back their quota from trade in the expectation that quota prices would further increase toward the end of the quota period. At the end of the period, unused and unsold quantities were surrendered by PPQ quota holders to the AEPC and transferred to the open quota allocation system. By then this quota could not be utilized and orders could not be executed in time. Until recently, the penalties imposed for nonutilization of past performance quota were so mild as not to offer any significant disincentive. The system has subsequently been modified. If the firm does not use its past performance quota by the end of each subperiod within the quota year, and especially the last period by September 30, the past performance quota is automatically surrendered to the AEPC. This policy has been in effect since 1988.

Some firms prefer to enter into quota exchanges: Two PPQ holders may exchange quotas for a country and category required by them. The exchange ratio is more or less determined by the prevailing quota prices. For example, according to a Bombay firm, the exchange ratio for U.S.

quota during the second week of July 1986 was 2.1 pieces of category 341 per piece of category 340, and this corresponded roughly to the prevailing relative quota prices on exports of the two categories.

Thirty-five firms provided specific information on the sharing of quota rents between importers and Indian firms. It emerges that the importers paid 54 percent of the prevailing quota price. The remainder was borne by the exporters. Alternatively put, *f.o.b.* prices increased only by about half the quota price. This is the clearest evidence we have of sharing of quota rents between importers and exporters.

The quota price is generated from demand in the importing country in excess of the quota available for that particular category. It is an indicator of the tariff equivalent that the marginal importer is willing to pay for goods of a particular category from a particular restricted country, and the quota price reflects the difference between the domestic price in the importing country and the cost of production (supply price) in the exporting country. As a result quota prices can be used to estimate the import tariff equivalent of the quota, or similarly, the export tariff equivalent. This is what we attempt to do below.

Three sets of data on quota prices have been collected. The first set was collected through a survey in 1985 and pertains to 1984, a year of the MFA III period. The second set of quota prices is for 1986, that is, from the MFA IV period. The quota prices were collected through a survey in 1987 and refer to exports to the U.S. and EC markets. Both sets of quota prices were reported in confidential responses from the firms, and they did not always provide us with a complete set of quota prices. Each firm provided information on those garment categories with which it dealt.

Table 8-13 Quota Premium, 1984 (MFA III)

| Country | Category | Price Range (Rs.) | Country | Category | Price Range (Rs.) |
|-----------------------|----------|-------------------|---------|----------|-------------------|
| United States | 335 | 2-18 | Canada | 1 | 10-40 |
| | 336 | 8-20 | | 2 | 6-20 |
| | 339 | 10-20 | | 4 | 6-14 |
| | 340 | 6-49 | U.K. | 4 | 0-6 |
| | 341 | 2-40 | | 8 | 0-2 |
| | 342 | 5-38 | | Norway | 5 |
| | 347-48 | 5-35 | 7 | | 4-12.50 |
| Germany, Fed. Rep. of | 641 | 4-30 | 27 | 7-20 | |
| | 4 | 2-6 | Italy | 8 | 0-4 |
| 27 | 5-25 | | | | |
| Sweden | 2 | 18-20 | | | |
| | 10 | 15-16 | | | |

Estimates of the authors.

Table 8-14 Quota Premium, 1986 (MFA IV)

| Country | Category | Price Range (Rs.) | Country | Category | Price Range (Rs.) |
|-----------------------|----------|-------------------|---------|----------|-------------------|
| United States | 336 | 2-38 | U.K. | 6 | 20 |
| | 337 | 20 | | 26 | 27-30 |
| | 340 | 8-35 | | 27 | 11-25 |
| | 341 | 8-60 | 29 | 14 | |
| | 342 | 10-36 | Norway | 8 | 25 |
| | 345 | 25-30 | France | 4 | 18 |
| | 347-48 | 18-20 | 6 | 20 | |
| | 378 | 25-30 | 7 | 7-14 | |
| | 641 | 6-32 | 8 | 7-22 | |
| | 642 | 5-6.50 | 26 | 24-35 | |
| Germany, Fed. Rep. of | 4 | 13-15 | 27 | 20-30 | |
| | 7 | 6-25 | 29 | 27-30 | |
| | 8 | 3-10 | Italy | 7 | 6-8 |
| | 27 | 7-19 | 45 | 15-20 | |
| Sweden | 29 | 15-26 | Denmark | 7 | 13 |
| | 5 | 6 | 45 | 30-32 | |
| | 10 | 10-23 | Benelux | 7 | 7 |
| Canada | 9 | 20-23 | 4 | 13-18 | |
| | 4 | 10-20 | Ireland | 7 | 20-25 |
| | 21 | 20-25 | | | |

Estimates of the authors.

The third set of quota prices came from official sources. In a major policy shift, the government has, since January 1988, instituted a system of quota auctioning. Certain "super-fast" categories were identified. A category was designated as super-fast if exports in that category exceeded 91 percent of the quota ceiling in each of the three preceding years. In case exports declined below this level, the category was dropped from the super-fast list and the auction, or "Open Tender System" (OTS), status was withdrawn from that category in the subsequent year. In each one of the super-fast categories the government initially placed only 15 percent of the total quota under the open tender system.

One effect of the OTS is to transfer some of the rent from private to public funds. The government has stated that it plans to use this revenue for public policies, such as setting up industrial development and export promotion funds for the industry. The OTS also has been a success from an efficiency point of view, and not just from a government revenue point of view. It has thereby invited strong protest from some sections of the trade and industry.

The quota prices recorded in the OTS have been used to verify our estimates based on firms' responses in the two earlier surveys. Tables 8-13 and 8-14 present the information on quota premiums during 1984 and 1986. The price range for each category refers to the minimum and maximum quota price for transfer of PPQ as reported in the surveys. The quota prices can vary from day to day, and fluctuations can be volatile. Our quota prices refer only to the quantities sold as transferred PPQ quotas. It is clear from the two tables that quotas became binding for a larger number of categories in 1986 as compared to 1984. The quota premiums reported in Tables 8-13 and 8-14 can be regarded as "black market" prices, as no official recognition, or price data, existed for quotas at that time. The range was influenced by the seasonality of the demand. The first period, starting in January, is the one with the heaviest demand, with demand later tapering off as the year advances.

The official quota prices generated by the OTS fully corroborate the prices indicated in Tables 8-13 and 8-14.¹⁷ A comparison reveals that in five U.S. and two Canadian categories, prices were within the price range of the earlier years. In the case of Sweden (categories 5 and 9) and one category in Canada (category 4), prices in 1988 were found within a much wider interval than in earlier years. This was also true of the eight EC categories where the quota price range was wider in 1988.¹⁸

The way the data on quota prices are presented indicates that these prices are found in a range rather than being quoted as a single price (even on the same day), just as prices in a stock market or a commodity market vary. Since different firms are willing to pay different quota prices, the incidence of quota differs among firms. The highest incidence of the MFA restrictions is perhaps borne by new firms entering the industry, since they need to buy the entire quota required for their exports to quota countries. Established firms with past performance quotas already are in the possession of this asset.

Export tariff equivalents (ETEs) of the "voluntary export restraints" (VERs) have been estimated for the period 1983-85 and for January 1988 to January 1989 on the basis of our sample data and the data generated by the OTS, respectively. The former estimates are available for exports to the United States only.

Our ETE estimates tend to be upper bound estimates since quota prices are calculated with reference to the floor price for each category. The AEPC regularly revises the floor prices, but the revision admittedly suffers from lags and can only approximate increases in production costs.¹⁹ The floor price has been used due to the lack of any better reference price.²⁰ The ideal price to use would be the price at which firms purchasing quota at the open auctions are obliged by the AEPC to export (the "up-set" price).²¹ That price was not available for all auctions and all categories at the time of writing. The second qualification is again to

Table 8-15 Indian Ad-Valorem Export Tariff Equivalent (ETE) for Each MFA Protected Market (Percent)

| | January 1988 | June 1988 | January 1989 |
|-----------------------|--------------|-----------|--------------|
| United States | 29.27 | 26.48 | 31.67 |
| Sweden | 41.29 | 34.36 | 18.45 |
| Canada | 23.70 | 9.23 | 14.43 |
| EC | | | |
| Benelux | 32.5 | 44.8 | 24.2 |
| United Kingdom | 32.2 | 23.2 | 19.0 |
| Germany, Fed. Rep. of | 67.4 | 58.5 | 24.8 |
| France | 63.8 | nil | 40.7 |
| Greece | 40.3 | 12.5 | nil |
| Ireland | 29.1 | 44.2 | 42.1 |
| Denmark | 14.4 | 7.2 | 14.5 |

Estimates of the authors.

point out the problems of aggregation of quota prices over time and categories. While single-point estimates are presented for each export market, it should be emphasized that these estimates do not apply to all types of garments exported to that market. Different segments of the industry face different quota restrictions, hence different quota prices are reported and different export tariff equivalents estimated. Auction prices are pushed up, as are cut-off prices, due to PPQ-holder bidding, since exporters are free to underinvoice subsets of consignments.

For 1983, the total rent due to the U.S. restrictions works out at Rs.137.1 million on the basis of 22,476 million pieces being under quota. For 1984 and 1985 the rent is estimated to be Rs.574.16 million and Rs.614.71 million, respectively. These estimates are upper bound estimates of quota rents generated by the subset of restricted categories included here. By expressing the quota prices in category n (TP_n) as a percentage of the average unit value (AUV_n) of exports to the United States minus the quota price, we derived the export tariff equivalent $ETE = [TP_n / (AUV_n - TP_n)]$. The ETEs emerge as 6.5 percent, 24.5 and 21.6 percent for the three years, respectively. Quota rents generated and appropriated in India were US\$102 million for the three years (1983-85), and amount to as much as one-eighth of the combined rent income of Hong Kong, Taiwan, and the Republic of Korea estimated by Hamilton (1986) for 1982-83.

The ETEs calculated on the basis of three quota auctions during 1988-89 (January 1988, June 1988 and January 1989) are presented in Table 8-15.²² A wide variation in quota prices across categories, and even over time, in the same category can be observed in the disaggregated data. For the United States, the ETEs varied from a minimum of 5 percent, in the case of women's coats (U.S. category 335), to a maximum

of 201 percent, in the case of men's knitted shirts (341). As pointed out in the literature on "upgrading," low unit value garments, e.g., Indian knitwear, emerge as bearing higher ETEs than high unit items, such as woven apparel.²³

The OTS auctions generated revenues of Rs.120.2 million (January 1988), Rs.77 million (June 1988) and Rs.187.8 million (January 1989). These are reliable estimates of quota rents as a result of the MFA restrictions.

The highest ETE rates are recorded for the Federal Republic of Germany and for France at 67.4 and 63.8 percent, respectively, and refer to January 1988. These rates were applicable to a small number of categories, and the quota rent generated was fairly small. Nevertheless, for a large number of United States categories the restrictions were binding. Although the ETE rates for exports to the United States are estimated only to be somewhere between 29 percent and 32 percent, the restrictions generated a substantially larger quota rent of Rs.146 million in 1988 because of a larger export volume.

The ETE rates and quota rents presented in this paper are the first estimates ever presented with regard to Indian exports of garments under the MFA. And they are also the first direct estimates for countries other than Hong Kong and Taiwan, both of which are "established" exporters, unlike India. Being a first attempt, we want to point out that our estimates rely on the use of floor prices as base prices and that trade in quotas outside the auction system was ignored. For the years prior to 1988 we have estimated quota rents based on quota prices for the United States only. Quota rents which may have leaked to importers through underinvoicing of PPQ exports are not included. Finally, it should again be mentioned that textile exports, which started to experience binding quota restrictions for the first time in 1988, have not been included in the rent estimates. Nonetheless, for the first time ever these estimates show some of the price and rent effects of the MFA quota regime when applied to garment exports from India.

India, the MFA, and the Uruguay Round

India is a relative newcomer in international trade in garments and textiles. This may indeed sound strange and ironical to those who know that during the interwar years, British colonial economic policy was put under pressure on account of active competition between Lancashire and Bombay textile industries. Predictably, an export duty was imposed on Bombay's exports to protect Lancashire. Nonetheless, in terms of postwar growth of textile trade, India effectively entered the global market in the 1970s. Its performance is typical of a newcomer. Until the

early part of the MFA III, India did not face binding quotas and was content to try to exploit the market share afforded to it by the MFA. This situation was reported in Kumar and others, 1988. During the latter half of the MFA III, India expanded its garment exports and reached its quota limits in major markets and in categories of primary interest. Quota restrictions began to bind in almost all major markets in 1986, and some upgrading effects could also be noticed. Quota rents were generated and shared between exporters and importers. As a result, India hoped for more liberal rates of quota growth during the MFA IV.

The MFA IV, however, has effectively frozen the market shares of the MFA III except for some minor alterations. The established exporters and some latecomers command the largest shares of the markets. Their volume of exports has remained unchanged, and through quality upgrading their value of export has increased significantly. There are also reports that a restructured domestic industry and distribution system in major importing countries have been somewhat successful in arresting domestic producers' decline in market shares, especially in textiles. It is clear that interests of consumers in importing countries and of producers in countries which are newcomers are not satisfactorily protected under the market sharing arrangement enshrined in the MFA IV, and with its expanded coverage the MFA IV is more restrictive than its predecessors. These developments go against the spirit of the Uruguay Round.

India's supply of exports has become restricted because of quota ceilings. This has happened in the second part of the 1980s. The Indian garment industry has substantively filled quotas since 1985 and the rate of growth of exports during 1986, 1987 and 1988 has been higher than the growth rates permitted under the bilateral MFA agreements. According to data for the calendar year 1988, total exports increased by 15.7 percent during 1988 (value). In volume terms the growth was 7.2 percent over 1987. India exported 396.7 million pieces worth Rs.21,486.4 million during 1988. In the major quota markets of the United States and the EC, exports in volume terms increased by 20.3 and 8.3 percent, respectively. In value terms the growth was 24.5 and 18.4 percent. To all quota markets, exports grew at 4.3 percent in volume and 12.7 percent in value. In 1988 in the seven major non-quota markets, growth was 9.2 percent in volume and 23.2 percent in value terms. Both in value and volume, aggregate growth rates of garment exports to nonquota markets were higher than export growth to quota markets. The more rapid growth of exports to nonquota markets demonstrates the Indian industry's competitiveness vis-à-vis other exporters.

In our view it will be in the interest of India and all developing economy exporters to see that normal GATT rules apply to textile and garment trade as well. Revenues from quota rents are not sufficient to compensate for lower market shares and lower value of exports com-

pared to a quota-free trading regime. Quality upgrading and increases in unit values would also come about under free trade. The only countries which perhaps would be adversely affected by a substitution of the MFA for free trade could be the developing countries and the potential entrants. A mechanism meant to replace the MFA will need to address their problems, and to afford preferential market access to the poorest exporters.

Notes

Carl B. Hamilton and Martin Wolf have commented on the text.

1. A mailed questionnaire elicited a poor response of 0.04 percent. An earlier sample, when 85 firms were interviewed in 1985, was followed by another set of interviews of 92 firms in 1986.

2. A large number of these registered firms exist merely on paper and are used exclusively to cover quotas. Our sample's coverage is, therefore, larger than stated here.

3. Based on discussion with export trade associations, it appears that out of a total of 11,000-odd firms registered with the AEPC, only 1,350 could be considered to be established producers with a reasonable level of production.

4. See Table 8-5.

5. As many as 157 firms out of the sample of 177 reported their reliance on subcontracting to fabricators.

6. Small firms, on average, had a capital outlay of Rs.0.176 million as compared to Rs.1.77 per establishment by larger firms. Investment per machine was Rs.7,062 in the larger firms and Rs.4,320 in the smaller ones.

7. See Khanna, 1988, p. 12.

8. The powerloom sector is an intermediate sector with the hand-spun, hand-woven sector at one end and the sophisticated capital-intensive mill sector at the other end of the spectrum. It consists mainly of decentralized, small power-operated weaving looms.

9. The other "star export" was gems and jewellery, primarily cut and polished diamonds.

10. Given the rather insignificant share of silk fabrics in Indian exports of garments, it is surprising that it has been covered in the Indo-U.S. bilaterals under the current MFA IV.

11. "Quota countries" refer to those 16 country markets where Indian exports were restrained by specific nontariff constraints.

12. These five are also referred to as "primary garment categories" and include: (i) ladies' blouses and tops; (ii) skirts; (iii) dresses; (iv) trousers and shorts; and (v) men's cotton shirts.

13. It is, therefore, important not to reach any conclusion on the basis of aggregated quota utilization rates.

14. The working of the quota distribution regime in India further exacerbates the problems in quota utilization, as is discussed in the next section. Essentially,

as Anjali Kumar (1984) points out, the distribution regime further fragments the quota categories and this results in greater underutilization.

15. These improvements were predominantly in packing and enhancing the shelf look of the garments.

16. Twelve were located in Nepal, seventeen in Sri Lanka, three in Bangladesh, two in Mauritius and one in Indonesia and Pakistan.

17. Detailed category data are available from the authors upon request.

18. These eight categories are: the Federal Republic of Germany—category 4; the United Kingdom—categories 4, 6 and 8; France—category 4; and Benelux—categories 4, 6 and 8.

19. The floor price, as was explained earlier, has been established to prevent leakage of foreign exchange due to underinvoicing. It is also the minimum f.o.b. price acceptable to customs for any shipment of a particular category of garments.

20. The "cut-off" price, as explained earlier, is used to allocate quotas in the "closed" quota allocation system. To use the "cut-off" price as the basis for the quota price would lead to gross underestimation because PPQ holders bid excessively in order to grab quotas in the "open" system.

21. This practice of establishing an "up-set price" began with the open auctions in 1988.

22. Supporting tables with details of the estimates are available from the authors upon request.

23. It may be repeated that quota auctions were limited to only 15 percent of the total quota available in the specified super-fast categories, and the ETEs estimated here are applicable only to these categories.

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Part III

Alternative Approaches to Returning Textiles and Clothing to Normal GATT Trading Rules

9

How to Cut the Textile Knot: Alternative Paths to Liberalization of the MFA

Martin Wolf

The experience in the textile sphere clearly shows that it is simply an illusion to believe that one can manage trade in a particular sector in response to the exigencies of that sector without any consequence for trade policy in general. International trade policies are either based on norms or create norms. World economic relations, therefore, cannot be managed by solving each problem separately without reference to previous solutions and without prejudice to the solution of future problems. (Dunkel 1984, p. 363).

The protectionism of the 1930s was openly adversary; the new one, however, builds on negotiation, indeed, is in a perverse way the result of international cooperation. As a result, the new protectionism is politically stronger because it accommodates a broader range of interests. Where earlier forms of protection created vested interests in the importing country only, the new protectionism has built up equally strong vested interest on the export side as well; paradoxically perhaps, discrimination has become the means of making export industries interested in continuing protection. For all these reasons the new protectionism will be much more difficult to roll back. (Tumlir 1985, pp. 38–39).

There are many ways to eliminate the Multi-Fibre Arrangement (MFA) and return trade in textiles and clothing to the normal rules of the General Agreement on Tariffs and Trade (GATT). They all share one drawback: they will harm a great many influential people.

It is for this reason, no doubt, that wise words on the need to liberalize the MFA have fallen on stony ground. The author of the present paper has either co-authored or authored papers on the liberalization of the MFA before the negotiations of both MFAs III and IV (Curzon and others 1981, Wolf 1985). Both of them stressed that further renewal was certain if an explicit commitment to the termination of the MFA was not built into the framework of the agreement. Back in 1981, for example, the Commission of the European Communities (1981, p. 9) said of the upcoming MFA III that "it considers that this period should enable the Community's industry to make new progress in its restructuring efforts." Restructuring there may have been, but this did not make the Community a jot more willing to dispense with the MFA when the time for renewal came round in 1986. After nearly thirty years of the textile arrangements, Benjamin Franklin might conclude that there are three certainties in life: death, taxes and the MFA.

But now, we are told, all will be different. In April 1989, Ministers agreed that (GATT 1989a, p. 8):

(a) substantive negotiations will begin in April 1989 in order to reach agreement within the time frame of the Uruguay Round on modalities for the integration of this sector into GATT, in accordance with the negotiating objective;

(b) such modalities for the process of integration into GATT on the basis of strengthened GATT rules and disciplines should *inter alia* cover the phasing out of restrictions under the Multi-fibre Arrangement and other restrictions on textiles and clothing not consistent with GATT rules and disciplines, the time span for such a process of integration, and the progressive character of this process which should commence following the conclusion of the negotiations in 1990 (our emphasis).

We have been told; but should we also believe?

There are good reasons for skepticism, not merely past, bitter experience, but also the truth that dares not speak its name: almost everyone who matters has loved the MFA. Liberalization of the MFA would, in large part, be a triumph of principle over expediency. It is wrong to assume that liberalizing principle always loses; but it is foolish to pretend it often wins.

Yet it would be wrong to be too pessimistic. The Uruguay Round offers what may well prove to be a unique opportunity to liberalize trade in textiles and clothing. But agreement to liberalize the MFA will be difficult to come by. Success will only come if the chosen approach goes some way toward dealing with the major political obstacles. This is the first criterion for evaluating any plan to liberalize the MFA.

The second is rather different: it is that the chosen means of liberalization should not itself damage the GATT. This is no small danger. The price for liberalizing the MFA that will be demanded by the major importing countries will be “strengthened rules and disciplines within GATT” (GATT 1989b, p. 1). This could prove to be a polite euphemism for the GATT’s ruination, an attempt to introduce some of the most pernicious aspects of the MFA into the GATT itself.

Origin of the MFA

If one is to assess plans for reform against such criteria one needs to start with an appreciation of why the textile arrangements exist. With the MFA gone, one might return to something close to the *status quo ante*, but a glance at history reveals that the *status quo ante* was not particularly liberal.

Origin of the Textile Arrangements

It was in Osaka in 1937 that the first “Gentlemen’s Agreement” between the American and Japanese textile trade associations was negotiated. “The U.S. Government clearly favored the unofficial approach, else anti-trust law would have been used to prevent it. . . . It is particularly significant that at the very beginning of the modern era of American trade policy the two prime movers in its development—Roosevelt and Hull—recognized the uniqueness of the textile import problem and arranged to handle it separately from their general trade program [as embodied in Reciprocal Trade Agreements Act of 1934].” (Brandis 1982, pp. 7–8)

The explanation for these governmental nods and winks to an informal, probably illegal agreement was that the United States possessed no legal authority for the introduction of import quotas, let alone discriminatory quotas. On the contrary, both were precluded not merely by existing law but by the fundamental policy of the Administration. The political itch created by “disruptive” imports from Japan could only be scratched extralegally.

What had happened before the Second World War happened again soon after, but at a time when the United States was strongly committed to nondiscrimination—the most-favored nation (MFN) principle—within the GATT, a treaty made in the image of its own prewar legislation. “Toward the end of 1955, Japan began to impose internal restrictions on some of her cotton textile exports to the United States In January, 1957, Japan gave American officials details of a five-year program of ‘voluntary’ export controls American pressure contrib-

uted to this outcome, particularly a provision in a new law, the Agricultural Act of 1956, which empowered the President, 'whenever he determines such action appropriate,' to negotiate agreements limiting exports from other countries or imports into United States of textiles or textile products and also giving him some emergency power to restrict these imports unilaterally." (Keesing and Wolf 1980, p. 15) What was it that persuaded the American Administration, averse to such intervention as it appeared to be, to put the required pressure on Japan?

Pressure from Congress is the answer, pressure orchestrated by the American Textile Manufacturers Institute. In 1956 the Senate only narrowly defeated an amendment to a pending foreign aid bill that would have mandated cotton textile import quotas based on the preceding three-year average import level. One reason for the defeat was that several senators were persuaded that other action would be taken to deal with the problem, as was, indeed, to be the case (Brandis 1982, p. 10). As the Finance Committee commented, "many members of the Senate may not wish to continue past support of international programs which contribute to widespread unemployment or serious injury to domestic producers." (Brandis 1982, p. 11).

The voluntary export restraint (VER) with Japan might have been the end of the matter. But, the textile industry spread like a plague. Exports expanded rapidly from Hong Kong, Portugal, Spain, Egypt and India. Worse, Hong Kong refused to accept a VER with the United States, although it did accept VERs on exports to the United Kingdom, along with India and Pakistan (Keesing and Wolf 1980, p. 15-16). But then, being a colony, it could hardly do otherwise.

Within the United States political pressure grew to such intensity that President Kennedy committed himself to support of the textile industry during the presidential election campaign of 1960. Quite apart from this commitment, it was clear that he would have to assuage the textile industry and its supporters in Congress if the dream of a new GATT multilateral trade negotiation (MTN), subsequently the Kennedy Round, was to become a reality. Moreover, like his predecessors (and successors as well) he was determined to avoid a bill authorizing textile import quotas. Such a bill would not merely comprehensively violate the GATT, but could almost certainly not be limited to textiles either.

So the search was on for an internationally respectable figleaf to cover the abandonment of the GATT's first article in the case of this industry. That figleaf was found in "the question of the avoidance of market disruption," already placed on the GATT agenda by the United States in 1959 (Dam 1970, pp. 297-300). For, to the horror of the developed countries, the GATT appeared to commit them to trading over bound tariffs with countries that had a decisively different pattern of compar-

ative advantage from themselves. Of no industry was this more true than textiles and clothing.

In the end, "market disruption" was incorporated into a new international agreement, an anti-GATT for textiles: the Short-Term Arrangement Regarding International Trade in Cotton Textiles (STA) of 1961, which begat the Long-Term Arrangement (LTA) of 1962, which begat the MFA of 1974 and so forth to the present day. With an international agreement that contained an explicit clause for unilateral safeguard action in Article 3, it was no longer particularly difficult for the United States to persuade the exporters to sign up for "voluntary," bilateral agreements under Article 4. It merely required plenty of action under Article 3 (Dam 1970, pp. 307-8).

Where were the other developed countries while the United States was going through these agonies? Most of them were comfortably protected by a rampart of quantitative restrictions that had originally been allowed under the GATT's balance of payments clause (Article XII) and had since metamorphosed into illegal, but persistent "residual restrictions." An important objective of the United States in pushing for the STA and then LTA was to secure "burden sharing," namely, liberalization of the nontariff barriers maintained by other advanced countries (particularly, the six members of the European Community, the three Scandinavian countries and Austria).¹ Substantial expansion of the quotas imposed by these countries was set in motion under Article II of the LTA (Dam 1970, p. 302), though the nontariff barriers themselves were not to be eliminated until the first MFA came into effect (when many of them metamorphosed into restrictions unilaterally imposed under Article III or agreed under Article IV).

The desire to persuade other industrial countries to liberalize was one reason for the American desire to create an international textile arrangement, but the most important aim was to protect both its own trade policy and the GATT from irresistible political pressure at a time when appearances still mattered a great deal. There was a belief that the GATT's safeguard clause (Article XIX) would explode if used as a container for the pressures generated by textiles. The greatest danger was thought to be congressional legislation in violation of the international obligations of the United States, leading to disintegration of the fabric of the GATT. The solution was an arrangement authorising discriminatory protection against "disruptive" exporters, but one that also promised liberalization, if not yet.

For the governments of the developing countries the motive for acquiescence was essentially the same as for American demands. If there were to be restrictions upon their exports, there would also be an international arrangement that ostensibly committed all industrial countries to liberalization. Developing countries also hoped the LTA would protect the

GATT through a mutually-agreed exception in an area of particularly high sensitivity.²

Not only were they deceived in their hopes. A liberally inclined scholar like the late Gerard Curzon (1965, pp. 257–8) saw the LTA as “an economist’s dream . . . What is praiseworthy about the situation is that the protection-inclined countries [of continental Europe] should voluntarily admit that this market-conforming mechanism should come into play, asking only for some measures that will reduce the abruptness of the disappearance of old industries . . . this type of agreement is obviously going to be the answer to many of the changes in world trade that will have to take place during the next few decades.”

Development of the Textile Arrangements

The birth of the textile arrangements marked an important failure of the GATT approach to trade liberalization. The political costs of liberalization turned out to outweigh the economic gains. The subsequent history of the textile arrangements merely confirmed the strength of the initial pressures.

The MFA says that “the basic objectives shall be 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.” (GATT 1974, p. 6). A finer bit of bureaucratic schizophrenia one could hardly find. There has been expansion of trade, but there has certainly not been reduction of barriers or progressive liberalization. Whether the development of trade has been either orderly or equitable, one may leave to those who understand these concepts. What is certain is that trade in textiles and clothing is now infested by thousands of origin-, destination- and product-specific quotas.

One episode in this long and sordid history is of particular importance to the theme of the present paper. Just as the STA and the LTA were seen by the United States as instruments for the liberalization of imports into other developed countries, so the MFA was *inter alia* viewed as an instrument for ending the “residual restrictions” of the European countries. Indeed, the general tenor of the MFA was, apart from the extension of product coverage, notably more liberal than that of the LTA. In particular, Article 2 explicitly committed the importing countries to phase out those restrictions inconsistent with either the GATT or the MFA.

Moreover, the members of the European Community went a long way in that direction. The period immediately after 1974 was one of substan-

tial liberalization of Community restrictions as policy was shifted from the individual members to the Community level. Unfortunately, that liberalization coincided with the first oil shock. Whether the liberalization could have been maintained if fate had not intervened in this way is unclear. In any case, the Community suffered a trauma from which it has not yet recovered. Under the impact of rapid growth of imports and declining demand, political pressure built up irresistibly, resulting in the "reasonable departures" clause of MFA II's infamous protocol of renewal. Thus ended any pretense that the MFA would prove to be a liberalizing agreement. The policy changes in the United States during the 1980s in response to the effect of the soaring dollar on the textile and clothing industries were nails in a coffin (Wolf 1987, pp. 264–66; Cline 1987, pp. 178–86 and Ch.9). As a liberalizing agreement, the MFA was by then already a corpse.

Sources of Support for the MFA

The pressures that created the textile arrangements are powerful. So powerful, in fact, that the GATT proved incapable of handling them. But as time passed another element became increasingly important: the web of vested interests committed to the system. As the late Jan Tumlir remarked, the MFA is an example of cooperative protection. It provides something for everyone who has a place at the table, while keeping those it harms well away from that hallowed place.

Importing Countries

Producers in importing countries are obvious beneficiaries of any system of protection of textiles and clothing. Also important, however, are the bureaucrats who design and implement the system and the lawyers and consultants engaged within it. In some countries—the United States, in particular—these are often the same people at different stages in their careers. As young men and women fresh from law school they hone their tools on the job and then extract rent for the remainder of their professional lives by selling their skills to the highest bidder. Not infrequently, this involves advising exporters on how to take advantage of a quota system they have themselves been responsible for creating. Within the European Community, too, the relationship between the industry lobbies and the bureaucracy is intimate. Comitextil, the Community's textile lobby, for example, played an active part in the design of the system of textile and clothing categories used in MFA II and, with slight modification, thereafter.

Exporting Countries

What makes the new protectionism special is the role of exporters. As a system of discriminatory export restraints, the MFA is an international cartel policed by the importing countries. One would expect at least some members of the cartel to be happy about its existence—and so they are. One would also expect each member of the cartel to be quite happy to see his competitors under restraint. There will be differences, however, over whether it is better to be restrained oneself, along with one's principal competitors, or to operate in a world with no restraints, instead.

Normally, one would expect the chief supporters of a cartel among exporting countries to be those with large export shares, like Hong Kong or the Republic of Korea. Correspondingly, one would expect the strongest opposition to the principle of the MFA to come from latecomers, who have little prospect of gaining the favored position now enjoyed by the East Asian newly industrializing countries. Hitherto it has not worked that way in practice, the reason being the widely held presumption that the exporters with the largest shares have also been the most competitive. This somewhat unusual situation ensures that the liveliest disputes have concerned the allocation of quotas among countries, rather than the principle of quotas.

Interests within the exporting countries also have a role. Generally, quota rent is insignificant for the economies of exporting countries, taken as a whole. Estimates for the 1970s suggest that quota rent may have contributed 4 to 6 percent of Hong Kong's gross domestic product at that time, but the contribution was certainly much smaller by the 1980s (Wolf 1987, p. 273). Quota rents are far more important, however, for the bureaucrats, politicians and entrepreneurs directly engaged in the industry.

In exporting countries most quotas are allocated to existing firms on the basis of past performance, with a small proportion available to new or exceptionally successful firms. One consequence of these methods for allocating quotas is the extraction of rent as bribes by politicians and officials; another is the contribution of quota rent to the profits of many existing producers. It has been estimated, for example, that quota rent may have contributed most of the profits of the Hong Kong clothing industry during the boom in exports to the United States in the early 1980s (Wolf 1987, pp. 273–74). No wonder the otherwise fiercely independent producers of Hong Kong are so attached to the MFA. Quota rent must have been equally important to established exporters in the Republic of Korea and Taiwan, and in recent years it has become valuable to established exporters in India as well (Kumar and Khanna in this volume, Table 14).

Third Countries

Often ignored in discussions of obstacles to liberalization of the MFA are the interests of exporters—principally, in the developed countries—not covered by export restraints. This is, however, an historically important feature of the system. The “gentleman’s agreement” between the United States and the European Community to leave the exports of each other alone allowed both of them to evade the restraint on increased protection inherent in the GATT’s MFN clause. Correspondingly, their own producers are among the important beneficiaries of the MFA. Remember that even the United States, not a significant exporter of these products, exported more clothing in 1987 (US\$1.14 billion) than all the economies restrained by export quotas, except Hong Kong, the Republic of Korea, Taiwan and India.

The determination to avoid restrictions on their own exports and the corresponding evasions of GATT discipline have been quite an important element in the textile story. On a number of occasions, the United States has reacted particularly violently against decisions by other industrial countries to introduce global quotas. This demonstrates the role of the MFN principle as an obstacle to protection and how important its violation was in the creation and sustenance of the MFA.

Tyranny of the Status Quo

Quite apart from the interests actively engaged, the tyranny of the status quo should not be ignored. Arrangements of this kind change only if there are powerful forces working in that direction. For those engaged within it, the MFA is a well-loved friend. Life without it is almost unthinkable. Most important, perhaps, is fear of the unknown. Studies might suggest that all—or at least most—developing countries would benefit from liberalization in the long run, but many exporting countries wonder how well they would fare if all restraints were removed. Even if moderately optimistic in this regard, they are concerned about the sorts of trade policies that might follow termination of the MFA. A restraint in the hand has seemed more valuable than export expansion in the bush.

The Feeble Forces for Liberalization

Set against the powerful forces in favor of the MFA, the opposition has been decidedly feeble. Consumers in importing countries are the main victims, but have had little clout. Importers have a voice, but one that lacks impact. Retailers will still sell clothes even if they are not made in developing countries, while importers employ too few people to matter.

Intriguingly, the main opposition has been intellectual. It has come from economists and a number of policymakers concerned about the costs of the MFA itself as well as its damaging effects as a precedent.

Opportunity for Liberalization

Despite all the obstacles, there is now a great opportunity to liberalize textiles and clothing. While overoptimism would be unreasonable, the window of opportunity presented by the Uruguay Round must be recognized. Only in such a round can the broad tradeoffs be made, both across issues and between countries, that are a necessary condition for liberalizing textiles and clothing. Furthermore, the declaration on textiles and clothing at the mid-term review suggests that there is at least some intention to seize this opportunity.

Perhaps the most important reason for optimism is the declining importance of the textiles and clothing industries in developed countries, especially in the countries of northern Europe. Thus between 1972/73 and 1983 employment in textiles and clothing fell by 64 percent in the Netherlands, 55 percent in the United Kingdom, 53 percent in France, 47 percent in the Federal Republic of Germany, 30 percent in Japan, 19 percent in the United States and 15 percent in Italy (Cline 1987, Table 5.3). Correspondingly, the political clout of the industry lobbies has diminished.

In the European Community the protection of textiles and clothing has become very much a north-south issue, but the greater dynamism of the Western European economy as a whole—itsself partly a result of the program to complete the internal market—has rendered the issue less fraught than in the late 1970s. Furthermore, the balance of opinion on trade policy may have become more liberal, one reason being changing opinions in particular countries (notably the United Kingdom). Partly as a reflection of these developments and partly because of the personalities involved, the present Commission has shown a markedly more liberal bent than its predecessors. One way for such a liberally inclined Commission to show that no “fortress Europe” is in the offing would be to liberalize textiles and clothing.

In the past the textiles and clothing interests in the United States have been able to hold successive MTNs hostage by making maintenance of a special protectionist regime for textiles and clothing the price of the MTN. The Uruguay Round has been an exception, since President Bush has made no formal commitment to the textile industry. This is, no doubt, a reflection of the dwindling importance of the industry. None the less, its clout in the United States should not be underestimated, partly because of its regional importance and the weight given to re-

gional interests by the American political system. The influence of the industry in Congress was shown in 1985 by the support given to the highly protectionist textile bill introduced by Representative Edgar Jenkins (Cline 1987, pp. 208–10). To some extent, however, that support reflected the general protectionist fever of the time, a fever that should continue to decline, along with the United States trade deficit.

No less important than changes in the developed world have been changes among the developing countries. Until quite recently the MFA was seen by many exporting countries as a means of guaranteeing a secure market against the competition of the highly constrained, newly industrializing economies (Hong Kong, the Republic of Korea and Taiwan). This is true no longer. Quite a number of exporting countries—India, Indonesia, the Philippines and Thailand, for example—view the MFA as an obstacle to increased exports. They also believe the newly industrializing economies are losing their comparative advantage, particularly in clothing, because of rising wages (just as Japan did in the 1960s). Businessmen in the newly industrializing economies concur, as is shown by their increasing interest in investment abroad. Thus the MFA is now thought to be an obstacle to the natural economic evolution of trade in textiles and clothing by a growing number of businessmen and policymakers in the developing countries.

Suggested Proposals for Liberalization

Many suggestions have been made for liberalization of the textile arrangement. These ideas fall into three broad categories: liberalization within the framework of the MFA; an immediate fall-back onto a revised GATT; and hybrid schemes, such as tariff quotas and auctioned quotas, which modify the MFA, while still maintaining important features of it. It should be stressed that these are not mutually exclusive alternatives. A successful scheme might incorporate all elements.

Liberalizing the MFA

Assume that the next MFA is to be the last. Then an agreement might be reached, to take effect on 1st August 1991 and run for ten years, with an explicit commitment to liberalization within that term. Thus, by 1st August 2001 there would be no restrictions within the MFA and any surviving restrictions would be fully GATT-consistent, which means above all that they would be nondiscriminatory.

How might one get from here to there within the MFA framework? There are many possibilities.

(a) *Accelerated growth rates.* Under this proposal growth rates of individual restraint levels would increase over the period, probably more rapidly in the second five years, until all restraints ceased to be binding (Wolf 1985). Meanwhile, new restraints would not be introduced during the currency of the agreement. The main advantage of this approach is that it would be familiar to textile negotiators, embodying as it does a very simple extension of the approach of the MFA itself.

(b) *Progressive quota removal.* This scheme would follow that used by the Organisation for European Economic Cooperation during the 1950s. A count would be made of all quotas by product, by origin and by destination. Then a certain proportion would be removed every year (perhaps 10 percent of the original number). By the end of the last year the liberalization coefficient would then be 100 percent.

Under this scheme importing countries would have complete freedom in choosing which quota to liberalize first, with the liberalization valued simply by numbers of quotas or by trade affected. The disadvantage of the former is that much of the earlier liberalization is likely to be of little meaning as trivial quotas are withdrawn. The disadvantage of the latter is that the weighting of quotas by trade affected is complex, since trade weights alter over time. Under this approach it might be necessary to stipulate which quotas are to be removed, year by year, during the initial negotiating period.

(c) *Removal of quotas by product.* Yet another route to liberalization is by products, starting perhaps with the intermediate products that need the least protection. Thus, complete liberalization of all textile products might be completed within the first five years, followed by progressive liberalization of clothing restraints in the second five years. This approach could easily be combined with (a) or (b) above.

(d) *Removal of underutilized quotas.* Underutilized quotas might be eliminated. This could be part of a scheme for liberalization, but it would self-evidently be insufficient on its own.

(e) *Removal of quotas on small suppliers.* As with removal of underutilized quotas, this would be a valuable starting point for a comprehensive scheme for liberalization, but it could not be the whole of it.

The above approaches are not particularly elegant, but they would have the advantage of being simple to manage within the MFA framework, with which everyone is familiar.

Falling Back on the GATT

A second strategy is to move textiles and clothing as swiftly as possible into the GATT framework, but one amended to give higher levels of protection than afforded by the GATT at present. The GATT would be used as a transitional mechanism for liberalization.

The starting point would be a decision within the Uruguay Round not to renew the MFA, which would then disappear after July 1991. It could be replaced by one of two nondiscriminatory, unquestionably GATT-consistent alternatives.

(a) *Global quotas*. Global quotas might be introduced on textiles and clothing in accordance with Article XIX. The important implication is that those of the United States would cover exports from the European Community and *vice versa*. There would then be a powerful incentive to remove such quotas as quickly as possible, though it would also be difficult to introduce them in the first place. If introduced, they might start with the total level of existing imports. The quotas would then either be allocated to importers or auctioned (the latter being a better way of achieving the Article XIII requirement of nondiscrimination).³ There would also be an explicit, time-bound commitment to phase out the quotas, perhaps by progressive expansion, though most of the alternative techniques, discussed above in the context of individual quotas under the MFA, could be applied to global quotas as well.

Proposals on the above lines were advanced by Gary Clyde Hufbauer and Jeffrey J. Schott (1985, pp. 56–60) when both were at the Institute for International Economics in Washington, D.C. Their proposals include an MFA element, however, in that origin-specific quotas on exports would be maintained during the transitional period.

(b) *Higher tariffs*. Bound tariffs could be raised by mutual agreement, presumably under Article XXV (which allows waivers) or Article XXVIII (which permits negotiated modification of bound tariffs). The aim might be to duplicate the overall level of protection now afforded by the MFA.

Estimates of the MFA's protective effect are extremely uncertain, since the results of the many different studies of the implicit protection afforded by the restraints are inconsistent with one another. They do agree on the variability of protection over time. The uncertainty and the variability mean that the replacement of MFA restraints by tariffs can only be a very rough and ready procedure. But then protection by restraints under the MFA is itself rough and ready. For example, the protective effect of MFA restraints is pro-cyclical: the greatest protection is given when it is least needed.

To give some indication of the magnitudes, William Cline of the Institute for International Economics in Washington, D.C., estimated (1987, p. 167) that "today the tariff-equivalent of apparel quotas is probably in the range of 25 percent (beyond the tariff), and that on textiles some 15 percent. . . . [T]he (multiplicative) impact of tariff and quota protection would have risen from 31 percent in the early 1960s to 56 percent today for apparel, while that for textile fabric would have changed from 30 percent to 28 percent." The position of the European Community might not be very different, though tariffs are lower.

The upper limit for "retariffication" might then be taken as a tariff of 50 percent on apparel and 25 percent on textiles. The advantage of making such an adjustment during the Uruguay Round is that it would provide the framework for a reciprocal, tariff-cutting negotiation on classic lines, which could include the main exporting developing countries as well as the industrial countries. This negotiation would then commit all concerned to a phased reduction in tariffs on textiles and apparel. There would be the additional advantage that, even though the overall level of protection might initially be similar to that under the MFA, its structure would be more rational than at present, since the MFA provides constantly varying implicit tariffs, which are highest for the least competitive production.

Both of the above approaches have the enormous advantage of representing a forthright repudiation of discrimination. The second has the still greater merit of entailing a return to the basic GATT-consistent means of protection, the tariff. The disadvantage would be that for many exporters the protective barrier could be much higher than at present. For this reason, it would be important to achieve a reduction of tariffs as well. This would have to be achieved within the Uruguay Round, since lowering of tariffs would be impossible outside an MTN.

Hybrid Approaches to Liberalization

The more complex, but intriguing, proposals are hybrids. They involve a degree of globalization and a degree of "tariffication," but they retain the discrimination inherent in the MFA. The main point of difference is whether auction quotas or tariff quotas are to be the principal instrument of protection during the period of liberalization.

(a) *Auction quotas.* In their study of the prospective MTN, published in 1985, Professor Hufbauer and Dr. Schott (1985, p. 57) recommended a scheme that combines auctioned global quotas (discussed above) with the maintenance of discriminatory quotas. Under their proposal the global quota would be increased by 6 percent a year, while national quotas would be reduced by 10 percent a year.

The proposal was subsequently developed by Fred Bergsten, Director of the Institute, along with a number of his colleagues (1987). The main difference from the earlier proposal was that, in their case, the so-called global quota would only cover producers under restraint. It would be a discriminatory, global quota, a notion entirely suitable to the wonderland world of the MFA.

The principal advantages of auction quotas are greater transparency, a more efficient allocation of resources through simplification of the quota structure and repatriation of quota rent. The latter is deemed particularly valuable by these authors because of their view that the

federal government is unable to raise more revenue, for political reasons, and so is unable to finance desirable adjustment assistance programs without the additional revenue. Quota auctions are also justified as a step toward tariffs because of the information they would provide on the tariff equivalent of the quantitative restrictions.

It may be noted that many of the advantages of tariff auctions could be obtained, without the transfer of quota rents from exporters, by encouraging the exporting countries to auction export quotas *anywhere in the world*. While difficult to imagine in practice, nothing would make protection more unpopular in the importing countries, more quickly.

That auction quotas are superior to country-specific import quotas is unquestionable. Their superiority to export restraints is far less certain. For the exporting countries they would only be preferable as part of a strong commitment to liberalization. But this must be doubtful. If auction quotas are a way of helping the finances of a government that is inhibited about raising revenue in any other way, why should that government abandon them? Auction quotas would inevitably increase the political weight of interests in the importing country that are in favor of protection. Since these are, in any case, the most important interests, it hardly seems sensible to strengthen them further.

(b) *Tariff quotas*. An alternative to auction quotas is the tariff quota, which has been recommended by Dr. Cline (1987; pp. 257–60) and by Gary Sampson, now at the GATT Secretariat (1987, p. 461–68). Under Dr. Cline's proposal all existing bilateral restraints would be turned into tariff quotas, with the higher tariff rate coming into effect at the existing quota level. The surcharge over the MFN tariff would be 25 percent for apparel and 15 percent for textiles. A second-tier surcharge would be imposed on "major suppliers" who increased the volume of their exports to the American market by more than 5 percent in a given year. The higher tier would bring the total tariff rate quota to 35 percent for apparel and 25 percent for textiles. Revenue from tariff quotas would be used to finance adjustment assistance.

All tariff rate quotas would be lowered at a rate of 1.5 percentage points a year until eliminated, and the volume threshold for the tariff quota would rise over time, at 1 percent a year for the major suppliers, 6 percent a year for those with less than 5 percent of total imports and 15 percent a year for those with less than 1 percent of the market and those eligible for assistance from the International Development Association (IDA).

Under Dr. Cline's proposals the tariff quotas would all be exporting-country-specific, though the tariff rate itself would have only two bands for countries under restraint (and three overall, with the MFN tariff). Dr. Sampson's ideas are a little different (1987, p. 464). "The current bilateral export-restraint arrangements would first be converted to category-spe-

cific quotas administered by importing countries. Imports by non-quota-holders would be permitted provided a penalty tariff was paid. To avoid disturbances . . . the penalty tariffs would be high enough to render out-of-quota imports prohibitive Likewise, the distribution of restrained imports across countries would not change, for initially each restrained country would be permitted to maintain its export entitlement."

Each year a proportion of each bilateral tariff quota would be transferred to a global pool to be auctioned by the importing-country government. Imports under the global pool would be at MFN tariffs. (This part of Dr. Sampson's proposal would be very similar to that of Dr. Bergsten and others, discussed above, since the "global quota" would only apply to countries under restraint.) Over time, liberalization would occur by a steady lowering of the tariff rate on out-of-quota imports.

Tariff rate quotas have attractive features. They could combine most of the existing characteristics of the MFA—discrimination and capture of rent by exporters on intra-quota exports—with a more transparent, price-conforming instrument of protection. For example, the quotas could be by value instead of by physical quantities, which would be an improvement over existing arrangements.

Tariff rate quotas have the advantage of giving a predictable margin of protection rather than the "variable levy" implicit in auction quotas. The margin of protection could also be the same for all exporters, not variable across countries as in the current MFA. They would raise some revenue as the tariffs fall (which would also provide an incentive for lowering them), while continuing to provide compensation to exporters in the form of the rent on the intra-quota amount. They are clearly more consistent with the GATT's general presumption in favor of the tariff. At the same time, they are somewhat complex and unfamiliar. There is also the important objection that acceptance of tariff quotas would legitimize discriminatory tariffs within the GATT.

Key Issues in Liberalization

If the MFA is to be liberalized it will be by exploiting such support as can be gained, while trying to assuage protectionist interests to the greatest possible extent. Account must also be taken of perhaps the most disturbing question raised by the history of the textile arrangement: can the GATT cope with textiles and clothing?

The history of the MFA offers two lessons. First, it will never be liberalized without a built-in mechanism of self-destruction. The commitment to liberalize must be irreversible. Otherwise, there is a vicious circle: unless firms are sure that protection will disappear, they will not

adjust to living without it, the reason being that governments will, they believe, not remove protection unless firms have adjusted to its absence. Second, the textile interests themselves are unlikely to come up with an agreement to liberalize. Unless such a scheme is evolved in the context of a GATT round, it never will be. The Uruguay Round probably offers the last opportunity to set a timetable for liberalization this century.

Recommendations for Liberalization

There are innumerable ways to liberalize the MFA and return trade in textiles and clothing to the GATT. The question is whether any of them would work politically. Can the interests now so effectively represented within the MFA be persuaded to prefer liberalization? This is doubtful. It is quite likely that the hostility expressed toward the MFA—even by exporting countries—is a negotiating tactic, the aim being to improve its terms rather than eliminate it.

Assume, however, that there is a real desire to eliminate the MFA. How should it be done? The broad requirements are irreversibility, simplicity and flexibility, with each importing country able to pursue a path toward the agreed end that seems best to it.

The existence of the Uruguay Round makes the termination of the MFA with the present agreement (MFA IV) and its replacement by higher tariffs, to be negotiated and then negotiated down in the course of the Round, attractive. Such a change would represent a decisive shift away from discriminatory restraints and toward a reaffirmation of basic GATT principles, which is precisely what the GATT needs. This would be the approach of Alexander the Great, who solved the Gordian knot by cutting it. Unfortunately, statesmen of that decisiveness are in short supply and, without such determination, the proposal looks infeasible.

If one is to liberalize within the framework of the current MFA, tariff quotas have attractions, largely because they can duplicate most of the features of the MFA, including extraction of rent by exporters. A possible plan is the following.

First, discriminatory restraints on minor suppliers would be removed, while the remaining export restraints would be kept as quotas to be allocated by exporting countries. A global tariff quota for all exports of the category in question from exporters under restraint would be established at the level of the average *value* of imports in the three preceding years adjusted upward by the general inflation of the prices of manufactured goods in world trade. The penal tariff would be established as 25 percent on clothing and 15 percent on textiles, with the quota itself auctioned by the government of the importing country (the advantage over the standard proposal for auctioned global quotas then being that out-of-quota exports would be possible, at the penal rate).

Liberalization would then occur in three ways. First, a given proportion of the initial discriminatory export restraints would be transferred into the global quota every year; second, the global quota would be expanded progressively; third the penal tariff on the global quota would be steadily reduced toward the MFN tariff (which might itself have been increased somewhat in the course of the Uruguay Round). The penal tariff would be eliminated altogether after ten years. Whether all discriminatory export restraint had been eliminated by that time or whether the global quota had ceased to be binding would be unimportant. One could allow importing countries some flexibility in these respects provided the reduction of the penal tariff continued on the preset timetable.

While elegant and well worth consideration, the route via tariff quotas suffers from the disadvantages of being both fairly complex and unfamiliar to negotiators. In addition, it would provide a precedent for discriminatory tariffs. If these advantages were considered insuperable, it would always be possible to take the simplest route of all, however inelegant: liberalization within the existing MFA. A problem with this is that, at some point, there would have to be a jump from a world with quantitative restrictions to one without them. It may be difficult to persuade governments to make this jump.

Buying Out the Opposition

It would be essential to have an international agreement on the broad outlines of a plan to liberalize textiles and clothing. It would not be necessary to agree on all the details. Authors at the Institute for International Economics in Washington, D.C., have argued, for example, that adjustment assistance is a necessary condition for import liberalization in the United States. Accordingly, their proposed reforms incorporate the self-financing of such assistance, whether through tariff quotas or auctioned quotas (Hufbauer and Rosen 1986; Cline 1987; Bergsten and others 1987). A similar view is taken by Robert Lawrence and Robert Litan of the Brookings Institution (1986). A desire by the United States to have such a special program of adjustment assistance, to be financed in this way, would not seem a matter of great international moment.

It is debatable, however, whether adjustment assistance is, in fact, a viable alternative to protection, rather than a supplement to it. The protectionist interests that matter—managers, shareholders and union officials—would not be among those helped by adjustment assistance. Furthermore, the role of trade-related adjustment assistance and the need for earmarked funds are significant issues only in the United States. In the European Community, with its far more developed systems of social welfare and training, there is no role for schemes related only to

trade. In addition, most European countries do not suffer from the self-inflicted fiscal wounds of the United States.

When one looks at the exporting side, the question of whether and how to buy out vested interests in the MFA is still trickier. One approach would be to start liberalization by removing restraints on exports from minor suppliers, thus splitting them off from other developing countries. It is possible that a combination of such a move with the introduction of auction quotas, which are clearly inimical to the interests of all exporting countries (unless combined with fairly immediate liberalization), would create a powerful exporting country interest in the abolition of restraints. But this would be a strategically dangerous move. While reducing the desire of interests in the relatively powerless exporting countries to preserve the MFA, it would increase the weight of those interests in the decisively important importing countries. This looks like a half-baked strategy for liberalization.

What is clear is that technocratic solutions, however ingenious, will not be enough. The MFA is a solution to a political problem. It will not be liberalized if the alternative is not politically effective.

Strengthening the GATT

The really fundamental issue is what happens to the GATT. It is already clear that the developed countries would accept the integration of textiles and clothing within the GATT and even the elimination of the MFA, but only if the GATT itself were, in the euphemistic parlance, first "strengthened."

This is not surprising. Textiles and clothing, like agriculture, were taken out of the GATT for a reason. The importing countries found themselves unable to live by their GATT commitments in these important cases. Being somewhat shame-faced about this, they have been prepared to subcontract the business of running the protection of textiles and clothing to the exporting countries. The GATT does, however, remain essentially the same agreement as the one from which the industrial countries escaped, though rather the worse for thirty years of wear. If they are to forego their special arrangement for textiles and clothing, industrial countries will wish to do something about the supposed defects of the GATT that drove them into the special arrangement in the first place.

The European Community has already revealed what changes it wishes to see (GATT 1989b, p. 6):

- Strengthening the GATT rules and disciplines should ensure:
- the effective and lasting opening-up of markets, involving contributions from all the negotiating partners, particularly as regards

tariffs, non-tariff measures and derogations for balance-of-payments and infant industry reasons;

- the creation of fair competitive conditions, particularly as regards subsidies, dumping, access to raw materials and the protection of intellectual property;
- improved safeguard discipline.

The important point about this agenda (which is likely to be broadly shared by the United States) is its comprehensiveness. Consider the three elements in turn.

In the first place, developing countries would be expected "according to their level of development" to assume a full range of GATT obligations and commit themselves to substantial liberalization of tariffs and non-tariff barriers affecting textiles and clothing. In so doing they would also have to agree to limit their reliance on the GATT's Article XVIII, which allows protection for balance of payments and infant industry reasons.

From the point of view of the liberalization of world trade and the economic interests of the developing countries themselves, these demands are not objectionable. Nonetheless, they create two major difficulties: first, the developing countries can rightly object that they are being asked to give up perfectly legal and long-accepted forms of protection in return for the liberalization of an illegal system of protection; second, the developing countries are also being required to accept huge changes both in their own trade policies and in their status under the GATT. One must wonder whether these are realistic demands and, still more, whether they are intended to be. They look more like conditions that cannot be met and are not expected to be met.

In the second place, the European Community is proposing to make trade more "fair" by changes in provisions of the GATT governing dumping, subsidies, cheap access to domestically produced raw materials and protection of intellectual property.⁴ In these cases the aim would be to improve the ability of the Community to protect its own industry in the face of what it sees as unfair practices by its suppliers. Given the proclivities of the Community's existing antidumping policy (Hindley 1988), antidumping and countervailing duties under such revised codes might serve as a more than adequate, and less than desirable, substitute for restraints under the MFA. Once enough suits were filed, the exporters would queue at the door in their desire to offer VERs. There is the additional risk that the proposed changes would make increased protection easier across the board, which would be no very good return for liberalization of textiles and clothing.

Finally, there is the long-vexed and central issue of the GATT's treatment of safeguard protection under Article XIX. The European Community suggests a special transitional safeguard arrangement for the period

of MFA liberalization. It also suggests a new safeguard code that would include "selectivity" (in other words, discrimination). There is little doubt that the MFA could, indeed, be eliminated if nonconsensual selectivity were permitted freely enough under Article XIX, as has been proposed by the European Community since the early 1970s. It is less obvious that this would be a good bargain.

In short, demands for "strengthening" the GATT by major industrial countries would appear to include changes that would make the grant of protection across the whole range of trade easier than it is already. The question is whether one can do better than this. If so, there would have to be two elements. First, the major developing country exporters would, indeed, have to accept both liberalization and more equal participation in the GATT, notwithstanding their resistance to this idea. Second, a way has to be found to make the GATT not more permissive, but both less permissive and more effective.

There are, for example, many excellent proposals for improving Article XIX of the GATT. The problem with all of them is that they would reduce the flexibility of the protecting countries. It is doubtful whether changes in a liberalizing direction would prove acceptable, while changes that would be acceptable are likely to make the position worse.

A partial escape from the dilemma might be through recently announced plans to strengthen GATT surveillance, though these changes will need to be complemented by greater domestic transparency of the costs of protection (Long and others 1989). It would only be if the absurdities of the MFA (and similar systems of protection) were to become obvious to all that their disappearance would leave trade in textiles and clothing more liberal than before.

In the end, the GATT might prove no more able to contain the political pressures generated in textiles and clothing now than thirty years ago. If so, liberalization would only be the temporary way station between two protectionist arrangements. An optimist might argue that the political leverage of the industry is declining and that we have learned our lesson about such special arrangements. Nonetheless, there is a danger that the price of liberalizing the MFA would be acceptance of some of its basic features within the GATT itself. That price would not be worth paying. There are things worse even than the MFA. One of them would be a trading system with the GATT's body and the MFA's heart.

Notes

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1. The United Kingdom also had such restrictions, but was allowed to maintain them without offering increased market access on the grounds that it was already a large importer and that its domestic industry had made substantial adjustments as well (Dam 1970, p. 302).

2. The fact that this was a formal international agreement was of particular importance to the Government of Hong Kong, whose policy was (and is) that it should not accept VERs. None the less, it had become convinced of the risks implicit in failure to consent to the textile arrangements.

3. Article XIII.2 states that "in applying import restrictions to any product, contracting parties shall aim at a distribution of trade in such product approaching as closely as possible the shares which the various contracting parties might be expected to obtain in the absence of such restrictions." Auctioned global quotas would seem more likely to achieve this than any other form of quantitative restriction.

4. One cannot avoid observing that the European Community's high moral position on dumping is somewhat peculiar for an entity that regards the subsidized export of agricultural produce as an inalienable right.

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10

Textiles in the Uruguay Round: Alternative Modalities for Integration into GATT

Sanjoy Bagchi

The Uruguay Round is of far-reaching significance for international trade in textiles. The previous multilateral negotiations—the Kennedy and Tokyo Rounds—did not interfere with the parallel system of rules governing the textile trade. On the contrary, some of the major trading countries had insisted on the continuation of the system as a precondition for the reduction of tariffs of the textile sector. Even then the tariff reductions were much less than the agreed cuts in the tariffs of other industrial products. This Round contemplates for the first time termination of the parallel system and the sector's eventual integration into GATT.

Even though the negotiations in the Uruguay Round are engaged in a large number of subjects, there are two underlying themes binding them together. The first one is related to further liberalization and expansion of world trade. This aspect deals with the reduction of tariffs, removal of nontariff measures and liberalization of trade in tropical and natural resource-based products. These are the traditional areas of negotiation in GATT multilateral rounds. This objective must also include liberalization of trade in textiles and clothing.¹

Strengthening of the Multilateral System

The second theme is concerned with the strengthening of the multilateral trading system. Over the years, there has been a persistent erosion of the multilateral disciplines contained in the General Agreement and an increasing recourse to bilateralism. The process began not very long after GATT came into existence and has by now assumed alarming proportions. It has affected many diverse areas of trade. The trade in agriculture started drifting away from GATT disciplines following the American waiver from its obligations in the mid-1950s. Shortly thereafter, certain GATT members negotiated an agreed derogation from the GATT rules to govern international trade in textiles. It has continued to operate in the form of the MFA until today. Then came some bilateral "voluntary" arrangements to restrict trade in automobiles and steel. There are now similar agreements to cover footwear, machine tools, consumer electronics and computer chips in some countries.

The general approach is to make sure that the foundations of the system are healthy and to extend the system to areas where it is not applied or is applied imperfectly. The Punta del Este Declaration envisages improvements and a strengthening of the trading system from four different angles. Of these, the one of paramount importance is aimed at improving the functioning of the GATT system as a whole, as well as increasing the overall effectiveness of GATT as an institution. In addition, the need to improve the rules and procedures of the dispute settlement process has been recognized and entrusted to a separate negotiating group. It is also generally accepted that the system will not function effectively if member countries, in times of political and economic necessity, continue to resort to measures inconsistent with the GATT. A comprehensive agreement on safeguards is of particular importance and its negotiation is the task of another negotiating group. These three negotiating groups could be described as dealing with the basic and fundamental problems of the multilateral system.

At the same time, the Declaration also recognizes the need to review and strengthen the existing rules pertaining to rights and obligations under the General Agreement that might need to be realigned with the realities of the present situation. The basic rights and obligations are still valid today but their exercise has shown certain shortcomings and lacunae which may need some modifications in order to improve the general discipline. This aspect is handled by three negotiating groups, dealing with the review of GATT articles, the MTN arrangements negotiated in the Tokyo Round and the measures pertaining to subsidies and countervailing duties.

Then, it has been felt that certain recent developments in international transactions have taken place for which there is no provision in GATT.

The trade in services has assumed significant proportions. The trade-related aspects of intellectual property rights, including counterfeiting, poses some problems for international trade. Similarly, there are no rules governing the trade-related aspects of investment measures. It is considered that the multilateral system would not be effective if these areas continue to function without multilaterally agreed disciplines. These aspects have been entrusted to three negotiating groups to deal with them.

Last, the system would not remain healthy if certain important sectors should continue to function outside its orbit. That is why an attempt is being made to introduce more discipline and predictability in world agricultural trade and to integrate the textile sector into GATT. The integration of the textile trade is important because its system of discriminatory bilateral quotas has been the model for similar restrictions elsewhere, for example, steel, automobiles, etc. The multilateral system will not be credible when parallel derogatory arrangements are allowed to exist.

The textile negotiations in the Uruguay Round, thus, have an important role in the context of the strengthening of the GATT system. The purpose of the Uruguay Round, as the chairman of the Punta del Este meeting said, is "to deal with the shortcomings of the past and to lay the foundations for the world of the future."

Negotiating Objective for Textiles

The mandate in the Punta del Este Declaration provides that "negotiations in the area of textiles and clothing shall aim to formulate modalities that would permit the eventual integration of this sector into GATT on the basis of strengthened GATT rules and disciplines, thereby also contributing to the objective of further liberalization of trade." The mandate does not specifically mention the dismantling of the MFA, but the underlying intention is quite obvious. After all, the MFA is the principal arrangement governing the trade in textiles operating on the basis of rules which are in conflict with the GATT obligations. It is this arrangement which needs to be integrated into GATT. There are, however, some measures employed by a few contracting parties which are not covered by the MFA and are also inconsistent with GATT. The negotiations in the Uruguay Round could also deal with these individual regimes and formulate modalities for their integration.

A significant element in the mandate refers to "strengthened GATT rules and disciplines" in connection with the process of integration. It was considered necessary to strengthen the multilateral rules to create a healthy environment in which trade in textiles could return to GATT.

The rules and disciplines relating to the safeguard actions, subsidization and countervailing measures, and trade in counterfeit measures are believed to be of particular relevance in this regard. The ultimate shape of the safeguard mechanism of the General Agreement will have a bearing on the textiles negotiations since in the absence of the safeguard measures under the MFA, emergency action to protect domestic producers from serious injury would be possible only under Article XIX of the General Agreement. The question of selectivity in the safeguard provision would have some influence on the movement toward integration. There are also certain other aspects, in addition, which are perceived to be relevant to the process of integration. It is considered that the elimination of the MFA should be accompanied by more discipline in the area of subsidies and manipulation of prices. The removal of current selective restrictions under the MFA should not lead to more frequent use of anti-dumping and countervailing measures which are also selective in application. At the same time, the exporting countries would be expected to undertake some commitments to refrain from subsidization. Attention has also been drawn to the problem of counterfeit goods and infringements of trademarks which are said to have distorted trade flows.

These are some of the implications of the element of "strengthened GATT rules and disciplines." There is a view that the trade in textiles has some peculiar features which necessitated the creation of special regimes in the past. The negotiations in this area should, therefore, take full account of the progress of negotiations of the relevant rules. Some others, however, hold that the negotiations in the textile field should not be contingent upon the strengthening of the relevant rules in the current negotiations. Such rules are not designed just for the trade in textiles but would be applicable to the entire trade in manufactures. If such rules, strengthened or not, are applicable to international trade as a whole, they should be good enough for the textile sector as well.

Another contentious issue is concerned with the scope of the contribution toward "the objective of further liberalization of trade." It implies that the process of integration should not result in a mere substitution of a GATT-consistent regime. It should also involve reduction of trade barriers and further liberalization. Many industrial countries currently using the MFA insist that the developing countries should also contribute to the objective of further liberalization by improving and enlarging access to their markets. It has been said that such cooperative efforts by the developing countries would make it easier for the domestic producers in the restraining countries to accept a greater degree of competition. The developing countries, on the other hand, argue that no compensation was paid to them when the derogatory system was imposed on them and they should not be required to pay a price for the return of this

trade to the normal rules. They also point out that their restrictive systems are on account of their endemic balance-of-payments problems and are authorized by GATT. Moreover, such restrictions are nondiscriminatory in nature. Some of them have autonomously liberalized imports in line with improvements in the balance of payments, while some others do not maintain any restrictions at all.² It does not seem to be proper to hold up the process of integration of the textile sector until a large number of developing countries have also liberalized their own barriers to textiles and clothing imports. "The notion of sectoral reciprocity has little scope in GATT and can only create new dangers for the trading system. This does not mean that the general GATT disciplines that could appropriately apply to developing countries in such areas as the use of import restrictions for balance of payments . . . should not apply to textiles and clothing as much as any other sector. Nor does it mean that it would not be in the interests of developing countries to participate in the wider global process of trade liberalization," should their circumstances so permit.³

The Process of Integration

It is generally accepted that the process of integration into GATT would need to be gradual and progressive. It has to be spread over a reasonable span of time in order to enable both sides—exporters and importers—to adjust to the changeover. The MFA has been in existence for a long time, and the system has become entrenched in exporting and importing countries. A period of transition appears to be necessary in order to dismantle the current protective mechanisms.

It would be logical then to construct a bridging arrangement consisting of particular rules for the transition period. It should contain certain essential elements. The transitional phase needs to be circumscribed by an agreed time-frame. It should extend over a reasonable period, neither too short nor too long. It ought to expire at a particular point of time excluding the possibility of further renewals. It would thus ensure that the bridging arrangement effectively remains a transitory one.

The bridging arrangement should clearly define the agreed modality of integration and its different stages in the context of the time-frame. The obligations of the participants in this respect would have to be specified. Provisions for appropriate surveillance and dispute settlement would also be required.

It would be anomalous if the dismantling or transformation of the current MFA restrictions during the transition period proceeds simultaneously with the imposition of new selective restrictions. There would have to be an explicit obligation prohibiting the employment of such

new restrictions. The need for new protective measures, as and when felt during the transitional period, could be addressed by resorting to the safeguard provisions of the General Agreement. This would make the process of integration smoother and easier.

Main Approaches to Integration

The objective in seeking integration into GATT is to reach a stage of nondiscrimination and further liberalization of trade. With this aim in view, there appear to be numerous possibilities for bringing about integration. There are many alternative modalities suggested by experts in the field of trade policy. The intention of this paper is to present an overview of the different ideas in order to assist the process of negotiation. The modalities could be grouped together under two general headings: phasing-out of the MFA restrictions and phasing-in of the GATT principles.

The first approach implies that the MFA has provided a soft option for protection, resulting in a proliferation of restrictions. Most of them have taken the form of anticipatory or preventive actions designed to avoid injury to the domestic industry. These could be progressively dismantled during the transition period. At the end of the process, there might remain a hard core of restraints on imports that cause actual injury to the domestic industry. These could then be addressed under Article XIX of the General Agreement.

The second approach seeks to introduce the elements of nondiscrimination and/or increased reliance on tariffs into the present protective system. These are the two basic principles in the General Agreement. Global quotas, tariffs or tariff quotas could then be used to implement this objective.

Though the end results are the same in both approaches, there are qualitative differences during the transitional period. Under the first approach, the various methods used to phase out trade restrictions bring about a liberalization of trade from the outset. The discriminatory aspect, however, continues in existence until the end of the process. In contrast, the second approach almost always leads to the elimination or reduction of discrimination from the beginning, while liberalization takes place gradually as the process gets under way.

Present Pattern of Textile Restrictions

In the context of the first approach of the phasing out of restrictions, it would be useful to see how the developed countries have used the MFA for protective purposes. The pattern of restrictions varies from country

to country. They have generally adopted the format of bilaterally agreed quotas that are usually administered by the exporting countries.

The European Community and the United States have adopted a more comprehensive system of restrictions. Both cover the whole range of textile products made out of cotton, wool and manmade fibers. The United States, in addition, has also placed restraints on products from a number of exporting countries that are made from other vegetable fibers and silk blends. Apart from specific quotas on particular products, the United States has often placed limitations on aggregate trade or trade in groups of products. Both of them have applied restrictions of varying magnitude on almost all the significant suppliers among the developing countries and the state trading countries of Eastern Europe.

Canada, Norway and Sweden have applied quotas mainly on clothing and made-up items. Canada has also restricted a few isolated textile products from certain sources. The restrictions cover a large number of exporting countries although the number is not as large as in the case of the United States or the European Community.

Austria and Finland have adopted a very selective approach toward restrictions. They apply quotas on a few selective items of textiles and clothing from a very limited number of sources.

Australia, Japan and New Zealand maintain restrictions outside the MFA. Australia has adopted a system of tariff quotas for a number of textile items since 1976. These measures, though akin, do not fall within the purview of Article XIX of the General Agreement because the tariff rates are not bound in GATT. Japan has voluntary export arrangements at the industry level for some products with China, Korea and Pakistan. New Zealand maintains quantitative restrictions on certain clothing items which are not consistent with the General Agreement.

Phase-out of the MFA Restrictions

There are many possible ways of winding down the MFA restrictions. The selection of an appropriate modality would need to take into account the present pattern of quotas and their coverage. There are a large number of them and they reflect different situations. Many of them are not related to the existence of actual damage to the domestic industry. Some of them have been there for a long time and may not reflect the changes in market conditions or trade flows. Some others have no economic justification but have been introduced on account of political considerations. Sometimes quotas have been used when import penetration from a source was negligible, while on other occasions imports had such a dominant share of total supplies as to obviate the need for

controls to protect the domestic industry. These features would have a bearing on the selection of a modality.

(i) One of the modalities designed to progressively eliminate the effects of physical limits and to enhance the role of the price factor is to enlarge the quotas at an accelerated pace. Professor Curzon and others have suggested it in the past when the renewal of the MFA was under consideration. It was then proposed that the MFA might be renewed for a longer period than four years. The growth rates of the quotas "for the first five years or so could be negligible but thereafter any bilateral agreement would have to embody steadily accelerating growth rates year by year, until all quantitative limits were abolished perhaps ten years from now. From then on problems in textiles and clothing should be dealt with in accordance with the general rules on safeguard protection on a nondiscriminatory basis and, if possible, by use of tariffs rather than quotas."⁴

Martin Wolf later gave this idea more precision. He also envisaged an MFA of a longer duration—up to ten years—having two halves. The second half would "consist of steadily rising minimum rates of growth for restraint levels, ending with their abolition. Thus, the minimum rate of growth for restraint levels in the fifth year might really be the 6 percent supposedly mandated by the MFA; then, say, 10 percent in the sixth year; 15 percent in the seventh; 25 percent in the eighth; 50 percent in the ninth; and 100 percent in the tenth, with abolition of restraint levels thereafter."⁵ This modality anticipates that perhaps most of the restraints would become redundant before the end of this process. The author had suggested two accompanying conditions: a commitment not to seek further renewal of the MFA and an agreement that no new discriminatory restrictions would be imposed during the second half of the proposed ten-year period.

In the present context, this modality could be adopted, perhaps with MFA IV serving as the first period of the scheme when growth rates could be raised to 6 percent in all cases during its remaining period. The second phase could then become the transitional period. In this case, the quotas would actually remain in place until the very end, but their restrictive effects would be progressively reduced and, correspondingly, relative prices will determine the flow of trade.

(ii) The modality of a higher growth rate has also been suggested in the context of the Uruguay Round elsewhere. After noting that the MFA has led to severe economic distortions and imposed excessive economic costs on consumers everywhere and that the time is long overdue to put an end to the proliferation of these restrictive arrangements, the report of the Atlantic Council of the United States proposed that the current MFA and its bilateral agreements be allowed to run their course until their expiration in 1991. "Thereafter the present quota restrictions be

progressively eliminated over a five-year period, that is, by 1996 and replaced by reliance on tariffs as the only allowable means of restraint against imports. In this period, quotas should be enlarged by at least 20 percent a year to their complete elimination in 1996, with tariffs taking increasing prominence in governing trade flows."⁶

The proposal also envisages the possibility of some adjustments in the prevailing tariff rates, as quotas are removed and tariffs become more significant. Such changes, if necessary, could be made by the renegotiation of bound rates under Article XXVIII of the General Agreement. "A country desiring to increase a bound rate would have to pay an equivalent new concession or suffer the withdrawal of offsetting concessions by other affected parties so as to maintain the general level of reciprocal benefits prevailing before the modification of the rates." Since the renegotiation of duties under Article XXVIII are available at three-year intervals, it may be necessary to obtain a special dispensation on the timing of such negotiations to fit the readjustment of rates into the five-year transition period of 1991-96.

The report recognizes that the level of tariff protection for the textile sector is higher than the average level of protection for industrial goods in general. It is likely that a further increase from these high levels, in pursuance of the renegotiations in accordance with Article XXVIII, could dilute some of the gains to the consumers from the liberalization of quotas.

The modality of accelerated growth of the current quotas would seem to enlarge the access of all restrained suppliers in almost equal measure. The actual benefits, however, would continue to depend on factors like quota utilization, supply capacity, quality and price, etc.

(iii) Another method by which the MFA restrictions could be progressively dismantled is on the basis of quota utilization. The bilaterally agreed quota levels assume that imports up to those levels would not cause market disruption. There are a number of quotas which are never filled and their elimination may not pose a threat to the domestic industry. It could be devised, for instance, that quotas which are utilized up to 50 percent in each importing country would be abolished to start the process of phase-out. Those with higher levels of utilization could be taken up progressively for elimination until the process is completed in the agreed time-frame, say, for example, those with utilization up to 60 percent in the second year, up to 70 percent in the third year and so on.

It might be mentioned that the current Protocol of Extension of the MFA urges the participants to consider removal of consistently underutilized quotas upon request (para. 11). This measure has also been suggested by Vincent Cable for liberalization in the short run.⁷ The European Community has already discarded some of the underutilized quotas in their bilateral agreements negotiated in the MFA IV.

The benefits of progressive liberalization in this modality, however, might not accrue evenly to all restrained countries. The incidence of quota utilization varies from one exporting country to another and also from quota to quota in each restrained country. There are also fluctuations from year to year.⁸ It would not be proper to determine the elimination of particular quotas on the basis of performance in any one year. It might be advisable to rely on average rates of quota utilization of, say, three years, in the recent past.

(iv) Another possible method would be to decide multilaterally upon a date for the completion of the phase-out process. The selection of quotas for removal annually could then be left to the discretion of each importing country, with the stipulation that an agreed percentage of national quotas would be eliminated at the beginning of every year. The proportion of quotas for removal might be the same every year, depending upon the agreed time-frame, for example 20 percent annually in a time-frame of five years, or 10 percent in a time-frame of ten years. It would also be possible to decide upon different proportions for each year, but ensuring the elimination of all quotas at the end of the time-frame.

The exports of restrained countries are sometimes not spread evenly over all their quotas but tend to be concentrated in a few. It may then be advisable also to take into account the proportion of actual trade that would be affected by the removal of quotas in order to render the liberalization process more meaningful.

This modality would be helpful for the importing countries to take into account the peculiar sensitivity of particular products in their own markets. The European Community, for example, has a well-defined group of what it calls "the most sensitive" categories. There are some sensitive categories in the United States as well, but they are not the same as in the Community.

This method would also ensure that the pace of liberalization would be proportionately the same in all the restraining countries, irrespective of their patterns of restrictions.

(v) The phase-out of restrictions might also be conducted on the basis of individual shares of the supplying countries in the total textile imports of each restraining country. It might be necessary to decide upon a base-year period for computing individual shares because these have a tendency to fluctuate from time to time. It could, for example, be decided that quotas on suppliers with shares of less than 1 percent in the aggregate imports of a restraining country would be removed to begin the process. During the next year, quotas would be removed from countries with shares up to 2.5 percent. The following year, the process would be applied to the quotas of the countries with shares of 5 percent and so on.

The concept of differential treatment of suppliers on the basis of import shares is not alien to the MFA. There is an exhortation to avoid restraints on small suppliers and least developed countries, but it has not always been observed. There is also a provision for the treatment of "predominant" suppliers in the Protocols of the MFA extension. The definition of these categories is not very precise and is open to subjective interpretation. A transitional arrangement based on specific shares would lend sufficient precision in respect of the obligation to phase-out.

This option has been proposed by Pelzman for gradual elimination of the MFA, structured within the Uruguay Round negotiations. He has suggested that "developed countries might withdraw their restraints from the smallest supplier countries first, with restraints being eliminated for larger suppliers progressively over time."⁹ In addition, he has suggested that "the growth rates of exports might be deregulated for the smaller LDCs, while the larger producers could return to the 6 percent annual growth rate. This gradual phasing out of the MFA would conclude with the total dismantling of the MFA quota regime and the return of textile and apparel trade to the governance of GATT."

An aspect relevant for consideration is whether shares of the restrained countries should be worked out in aggregate imports or in the imports of particular categories. The MFA describes a small supplier as one with a small percentage of the "total" imports of textiles in an importing country. A small supplier in terms of total trade may sometimes have a substantial share in one or more specific categories. This has often resulted in the imposition of restrictions. It has been argued that starting the process of phase-out of restrictions with small suppliers would lead to an accentuation of discrimination in its later stages. The determination of shares in particular categories might perhaps lead to a wider spread of the benefits of liberalization.

(vi) Since the GATT safeguard system is product oriented, a more appropriate technique for phase-out might perhaps be based on the nature of the products restrained rather than depend upon the classification of supplying countries. It should be possible to start the dismantling process with quotas on products from the first stage of textile manufacturing, like tops and yarns, and then progressively move on to fabrics, made-up articles and clothing. Tops and yarns are intermediate products and raw materials for the weaving stage. Similarly, fabrics are raw materials for the end products of consumption, viz., made-up articles and clothing. It is believed that quotas on textiles have been made "largely redundant by technology change and represent an unnecessary cost to the garment industry."¹⁰ It may be recalled that the Protocol of the MFA extension in 1981 had asked for priority attention to be given to "sectors of trade, e.g., wool tops," in the context of phasing-out restraints (para. 17).

The prevailing pattern of restrictions shows that there are fewer restrictions on yarns and fabrics and a greater concentration in the clothing area. If a common timetable of staging is adopted by all the restraining countries, some of the smaller importing countries that mostly impose restraints on clothing items would enter the process at a later stage.

This modality, however, might postpone the benefits of liberalization to the final stage of the process with respect to some small suppliers which are principally exporters of clothing.

(vii) There is also the theoretical possibility of devising a phase-out mechanism based on the fiber composition of quotas. Currently the quotas are applied to textile and clothing products made out of cotton, manmade fibers, wool, vegetable fibers and silk blends. In practice, it would be difficult to segregate the quotas according to the fiber composition, particularly the quotas on clothing. The United States alone distinguishes its quotas according to fiber in its category system for all products. Although such distinction is made for textile items in the other restraining countries, the quotas on clothing usually include at least the MFA fibers. For this reason, this option does not seem to be a feasible one.

In the selection of an appropriate modality under this approach for phasing out the MFA quotas, it would be desirable to ensure that, as far as possible, all the restraining countries move toward integration at the same pace. In order to obtain balance in obligations and in accruing benefits of liberalization, it might be necessary in some of the options to interpolate elements from other modalities.

Phasing in the GATT Principles

The basic GATT principles relevant for purposes of integration of the textile sector are nondiscriminatory treatment of trading partners and avoidance of quantitative restrictions for protection. The approach toward integration from the direction of the phase-in of GATT principles would necessarily involve progressive dissipation of the discriminatory character of the current regime and its replacement by nondiscrimination. This approach also envisages more reliance on tariffs as a means of protection rather than the continued dependence on quotas. It involves, in principle, the use of nondiscriminatory quotas, tariffs in place of quotas or tariff quotas.

(i) With a view to the elimination of discrimination, a possible modality might be to convert existing bilateral quotas into global quotas, covering imports from all sources, under Article XIX of the General Agreement. The restricting country could also allocate individual shares

in the global quota to substantial suppliers (with or without their agreement), in accordance with the provisions of Article XIII. The country shares would largely ensure the continuance of the present pattern of trade flows which has been determined to some extent by the existing quotas.

A straight conversion of all the existing bilateral quotas into global quotas for each of the products involved, though consistent with GATT, would not be in conformity with the objective of further trade liberalization contained in the mandate of the Uruguay Round. A global quota for a product would also apply to the currently unrestrained countries, both developed and developing. This would mean an extension of restrictions. This problem could be mitigated to some extent if a restraining country only applies global quotas to such products whose producers are facing serious injury in terms of Article XIX. This might lead to liberalization of imports of some products and could provide some balance against the extension of restrictions. It might also be anticipated that the application of global quotas would be influenced by the question of compensation in the GATT system, particularly with respect to products for which the developed countries are the principal suppliers. This might lead to a reduction in the number of products under global quotas compared with the products under the MFA quotas.

This modality has been tried in the past by Canada and Norway where, for short periods, the MFA quotas were converted into global ones. It was not continued either because of the pressure from the other developed countries or because the MFA was found to be more convenient.

(ii) A system of global quotas with a rather different manner of operation was suggested by Hufbauer and Schott in the context of the MFA renewal in 1986.¹¹ It was then proposed that the MFA should be "rolled over" in 1986 and that the new round should establish a schedule of liberalization that returns textile and apparel trade to GATT discipline by the year 2000.

"As a starting point, each major importing nation would establish a system of global quotas on major individual textile and apparel categories covering supplies from all countries." The global level of the quotas at the beginning would be based on the volume of imports in the final year of the MFA. Individual country quotas would be maintained within the global quota, the levels being set with reference to previous bilateral restrictions and in the case of non-restrained countries, to recent trade flows. Incidentally, it should be borne in mind that restraint levels and the recent trade flows of unrestrained suppliers may not be equal to the total volume of imports as many quotas are underutilized. Each year the global quota would be increased by 6 percent while the national quota for the exporting countries would be reduced by 10 percent. Over a

period of time, the national quotas would be reduced to zero, while the global quotas would be expanded to the point that they no longer restricted trade flows. The unallocated quota rights (that is, the 6 percent annual increase plus the 10 percent deducted from the national quotas) would be auctioned off by the importing country to the highest bidder. The proceeds from the quota auctions, together with the tariff revenues, would be dedicated to adjustment programs for the domestic industry.

The authors point out that their solution combines three strategies: self-financed adjustment, an umbrella of temporary protection and gradual growth in the volume of trade subject to market forces. The global quota would ensure that the domestic industry is not swamped by sudden increases in imports. The progressive reduction of national quotas would lead to a gradual reduction of discrimination. The quota auctions would encourage exports from the most efficient and price-competitive suppliers. It is estimated that the revenues available would be more than the present level of the Trade Adjustment Assistance program in the United States.

If the expiration of MFA IV is taken as the starting point and if the objective of "retiring" the MFA in the year 2000 remains, it may be necessary to increase the annual growth rate of global quotas to more than 6 percent to reach a point where they do not restrict imports. Alternatively, it could be decided that global quotas would be discontinued in 2000.

(iii) A later variant of the above modality has been suggested by Bergsten and others.¹² Instead of a global quota covering all supplying countries, it would be limited to the MFA suppliers. It would be "the sum of the country-specific quotas for each product category" in the last two years of MFA IV. "All suppliers not subject to MFA agreements would remain free of quantitative restrictions on their exports." This type of "global" quotas has been prompted by a disinclination to increase the protective effect of the existing controls to unrestrained countries. It has also been suggested that instead of quotas for each individual item as at present, the "global" quotas should cover product categories as broadly defined as possible (broadbanding). Apart from these changes, the elements of the rest of the scheme remain unaltered. Each year the global quota for each importing country would be expanded by a certain percentage; at the same time, the national quota of each exporting country would be reduced by a certain percentage. The unallocated quota rights (the increase in the aggregate level plus the reductions in the national quotas) would be auctioned off by the importing country.

The auction of quotas has been suggested not because it is "desirable in absolute terms" but because it is "less bad than the alternative administrative techniques." It has been argued that auction quotas provide for greater transparency than do voluntary export restraints (VERs). They

would generate revenues to finance programs of trade adjustment for the protected industry. They appear to be "largely consistent with the international trading rules of GATT." The auction prices would provide "a sound basis for substituting tariffs for quantitative restraints after the transitional period of quotas."

The main drawback to this proposal is that there is no progressive reduction in discrimination during the transitional period. The "global" quotas would continue to apply only to the restrained MFA suppliers.

Moreover, it does not envisage a reduction in protection. The scheme implies that the period of global quotas and their auction could be followed by an increase in the existing tariffs based on the incidence of auction prices. This does not take into account the high tariffs in the textile sector providing a higher level of protection compared with the rest of the manufacturing sector.

The authors recognize that there is an element of "reverse foreign aid" in the auction system by taking rents away from the developing countries. They, however, argue that an important share of the rents goes to more advanced and more competitive countries, and not the poorest countries that are the main recipients of foreign aid. It is said that the long-term prospect of import liberalization should compensate the competitive countries for the short-term loss of revenue. The others should receive "tangible trade benefits" as part of the contractual deal in the Uruguay Round "in return for their acquiescence of auction quotas and a gradual phase-out of MFA restrictions." This argument, however, does not take into account the windfall profits which would accrue to the protected domestic industry of highly developed but uncompetitive importing countries. Nor does it provide a definite assurance of corresponding trade benefits to such exporting countries which do not gather any economic rent.

It is also feared that the revenue-generating aspect of the auction quotas could lead the government to get "hooked" on the scheme. The authors have suggested getting round this problem by setting firm dates for ending the quota regime. It would also enable the industry to have a clear idea of the time available for adjustment.

Since quota auctions feature in a number of proposals, it is worthwhile to look at some of the implications. The main lure of quota auctions is to grab the scarcity rent generated by quotas in the first place. Bergsten has argued that the current system of bilateral quotas administered by the exporting countries gives away "billions of dollars of quota premiums to our chief competitors abroad and it creates an unholy alliance between exporters and import-competing industries that tends to perpetuate the QRs themselves."¹³ He believes that "auctions would render the protection much more transparent to Americans by revealing the size of the rents at each sale, thereby generating pressure against retaining the

QRs." He estimates that auctions would generate a revenue of about \$4 billion in textile and apparels for the U. S. Treasury. This revenue could be "ear-marked to assist the protected industries to adjust to competition from abroad, permitting the production itself to be phased down and eliminated after a fixed transition period."

The estimate of revenue generation has been questioned by many authorities, including the Congressional Budget Office, which considered them to be exaggerated. It is obvious that changes in exchange rate and market factors would have considerable influence on the levels of auction premium. The Australian experience of the auctions during 1982-87 shows that premium rates have fluctuated widely from year to year and product to product. There is no consistent pattern. For example, the premium on men's suits and coats was at 100 percent in 1983 and 1984 but it fell to 20 percent in the following year. During the same period, the premium on women's dresses, which was 55 percent in 1983 and 1984, increased to 71 percent in 1985 and then dropped to zero in 1986.¹⁴ This was before the major devaluation of the Australian currency.

The quota auctions are likely to have some adverse effects on the domestic market. The auction premium could have the same effect as that of tariffs. It would have a tendency to raise the prices of the auctioned products, which in turn could affect the domestic prices. It could also contribute to decreased competition in the domestic market. The Australian experience in footwear has been that auctions have led to concentration of quota holdings in the hands of a few large manufacturers, importers and retailer-importers.¹⁵ It has enabled the domestic producers to control the quantity and prices available in the domestic market. The process is likely to create a new "unholy alliance" of domestic producers and importers with the aim of perpetuating the auction system.

On the international side, the fluctuations in the premium from auction to auction would disturb the establishment of stable commercial relationships. The prevailing commercial relations are likely to be discarded when the premium rises, forcing the importer to search for cheaper sources. The consistency of auction premium vis-à-vis the provisions of the General Agreement is yet to be tested. At first sight, it would seem to conflict with the obligations contained in Article VIII. The argument that quota auctions would promote trade liberalization seems to be misplaced.

(iv) Instead of global quotas, a different track has been suggested by Martin Wolf.¹⁶ He finds that "the present system of specific quantitative restraints leads to a chaotic structure of fluctuating implicit tariffs." The high incidence of quotas for certain products conceals the fact that the highest protection is afforded to the least competitive production. "The

economic costs of export restraints are certainly high . . . but their cost is known to nobody" because they are completely nontransparent. He has suggested "a return by developed countries to a trade regime of nondiscriminatory tariffs."

A first step would be the decision to replace existing quotas for the restricted products by equivalent tariffs. The second step would be negotiations aimed at lowering such tariffs. An immediate move to tariffs is considered "attractive since it would make obvious the levels of protection and in addition, the reduction of tariff levels is a process with which trade diplomacy is entirely familiar." The phased reduction of tariffs was the accepted procedure in the Kennedy and Tokyo Rounds of multilateral negotiations. It was also adopted by the European Community, at successive stages of its enlargement, with the newly acceding members.

A return to tariffs will have the advantage of eliminating discrimination at a stroke. It will, however, not affect the preferential regime of free-trade areas. It is also consistent with the underlying principle in GATT of relying on tariffs as a means of protection and avoiding quantitative restrictions. It could be argued that an increase in tariffs would run counter to the theme of liberalization embodied in the Uruguay Round. But then it would fulfill the objective of the integration of this sector into GATT. Moreover, the tariffs would only be raised temporarily during the transition period. They would be reduced in stages, and an agreement could be reached on their final reduction from the present levels. The ultimate level of tariffs to be reached and the stages of reduction could be the subject matter of negotiations. Since the textile tariffs in most of the developed countries are bound, any increase to quota-equivalent levels would necessitate either a generalized waiver under Article XXV, or a decision to renegotiate tariffs under Article XXVIII, which could also form part of the agreement for the sector in the Uruguay Round.

It is, of course, realized that "no structure of tariffs would duplicate, in practice, the pattern of protection granted by restrictions under the MFA." The determination of quota-equivalent levels, in the absence of any accepted methodology, should not be left to the discretion of any importing country. It would need careful negotiations among the concerned parties to reach an agreement on reasonable levels which are neither prohibitively high nor unrealistically low.

Some empirical studies have estimated tariff equivalents of quotas. Morkre, using premiums for transfer of quotas in one market, has worked out the price differentials of the exported products in the absence of quotas and the actual prices obtained under the quotas in the United States.¹⁷ On this basis, the average tariff equivalent for nine major clothing items in 1980 amounted to 23 percent. Hamilton estimates the

tariff equivalents on the basis of quota rents which is "the difference between the price paid for licensed output and the marginal cost of supplying it (before taking account of the cost of acquiring licenses themselves)," with some qualifications.¹⁸ With respect to clothing exported from one source during 1981-84, he finds the average tariff equivalent of quotas in the United States to be 25 percent, and in the European Community it ranges between 13 and 15 percent. Cline, on the basis of the estimates of Morkre and Hamilton, arrives at "a reasonable estimate" of 25 percent for clothing and 15 percent for textile quotas as tariff equivalents (excluding the import duty).¹⁹ These estimates, based on data of quota sales in one exporting market, may not be appropriate for universal application. It is also based on the assumption that the quotas are consistently fully utilized, which is not the case with a large majority of them. It is also doubtful if price increases of this magnitude, on account of quotas, always take place in the presence of many alternative suppliers, both restrained and unrestrained.

A different and more comprehensive approach has been adopted by Pelzman to determine the price effects of quotas.²⁰ His model recognizes that in any market there are foreign supplies under quota, foreign supplies which are unrestrained, and domestic supplies. He uses a set of equations of import demand, supply and market-clearing condition for both the controlled (restrained) and uncontrolled markets, taking into account the quantity and price of imports. His resultant estimates of tariff equivalents for all restrained textile categories of the United States in 1986 range widely, from 0.8 percent for wool sweaters (category 445) to 51.8 percent for synthetic fabrics of spun yarn (category 613). However, unlike the other estimates, the level of tariff equivalents for clothing items is generally lower than that for the textile items.

The great variations in the different estimates would indicate that a model for conversion into tariffs would need to take into account a number of factors and make a number of assumptions whose validity is debatable. Nevertheless, in view of the positive features of the scheme in principle and the administrative convenience of its operation, it might be useful to avoid seeking an exact quantification of the tariff equivalence of quotas. Instead it should be politically feasible to determine a reasonable level of tariffs to replace quotas in a pragmatic manner in the course of the Uruguay Round. In this process, the existing tariff levels, the quota coverage of trade, the utilization of quotas and such other relevant factors could be taken into account. This could be followed by an agreement to bring down the tariffs in gradual stages.

(v) Another way of phasing in GATT principles into the present system is through tariff quotas. It combines to some extent the quantitative certainty of quotas with an enhanced role for prices in the market. Cline has proposed what he calls "Tariff Rate Quotas" (TRQ) in place of

the present bilateral quotas "to eliminate special protection by the year 2000, leaving only tariff protection" in textiles.²¹ The target levels of tariffs by then are proposed to be 10 percent for textiles and 15 percent for apparel. A TRQ, unlike a bilateral quota, does not specifically limit the physical volume of imports but relies on a tariff surcharge to hold imports at quota levels.

He suggests that the TRQ be applied in the United States to all the bilaterally agreed quotas existing in 1987 or negotiated subsequently. It would not apply to "those product categories not currently covered by quotas for a particular supplying country." The countries that currently do not face quotas at all would be exempt from TRQs. Thus, every bilateral quota under the MFA would be converted into a country-specific TRQ. The volume of each TRQ would grow over time at different rates. The annual growth rate of the four major Asian suppliers (China, Hong Kong, Korea and Taiwan) would be 1 percent. The rate for countries with shares of less than 1 percent in total U. S. imports of textiles and clothing and those with low per capita incomes qualifying for International Development Association (IDA) assistance from the World Bank would be considerably higher, at 15 percent. The rate for the others, with shares ranging from 1 percent to less than 5 percent in total U. S. imports, would be the same as in the MFA—at 6 percent.

The imports up to the levels of the TRQs would take place at the Most Favored Nation (MFN) rates of tariffs. Imports beyond those levels are possible but would attract a surcharge of 25 percent for apparel and 15 percent for textiles on top of the nominal tariffs. The total tariffs on imports exceeding TRQs would thus be in the vicinity of 25 percent for textiles and 50 percent for clothing. There would be "a second-tier surcharge" of 10 percent applied to "major suppliers (defined as suppliers providing more than 5 percent of total United States imports of textiles or apparel, respectively)" when their exports to the United States increase in volume by more than 5 percent in a given year. The second-tier in such cases would provide total tariff protection of approximately 35 percent for textiles and 60 percent for apparel. The second-tier surcharge would be liable for termination for the country in question when its exports in subsequent years fall "behind a growth path of 5 percent from the base year." A timetable has been proposed for the reduction of the surcharge, including the second tier, at a rate of 1.5 percent per year. At this rate, the surcharge would disappear for textiles in about ten years and for apparel in seventeen years. The elimination of the second tier would take an additional six years.

Any revenue generated by TRQs would be channeled to a special program of adjustment assistance, focused on retraining, relocation and employment services for displaced workers. These funds would be additional to the general U. S. employment programs and could be

supplemented by broader U. S. programs of adjustment assistance for workers affected by imports. The intention is to provide assistance to people working in the textile and apparel sector. The program would not provide funds to firms.

The scheme is as discriminatory as the MFA and does not provide for the removal of discrimination until the surcharge is eliminated totally and reliance is placed only on nominal tariffs. This pattern of tariff quotas would not be in conformity with the GATT. The introduction of discrimination in tariffs by means of a differential surcharge sets a dangerous precedent and would erode the fundamental principle of the MFN tariffs. In terms of liberalization, although there is a theoretical possibility that imports might exceed the tariff quotas, in practice it might be almost impossible to surmount the discriminatory surcharge set at such high levels. There would be, of course, some liberalization from the outset for the small suppliers and low per capita income countries when their tariff quotas are allowed to grow at 15 percent annually. For the others, liberalization, compared with the present situation, is unlikely to take place until the surcharges are reduced to the proximity of nominal tariffs. The target level of tariffs at 10 percent for textiles and 15 percent for apparel to be reached by the year 2000 would imply ruling out the possibility of meaningful tariff reductions in the Uruguay Round. It would mean a continuation of higher levels of tariff protection for the textile and clothing sector compared with the other areas of manufactures.

(vi) A different system of tariff quotas has been proposed by Sampson as a bridging arrangement.²² He suggests that "the removal of the MFA should be negotiated during the Uruguay Round." The MFA and its bilateral restraint agreements should be "replaced by tariff quotas with a gradual and negotiated return to bound nondiscriminatory tariffs as the only form of protection." A system of tariff quotas as an intermediate arrangement would provide "the quantity certainty of quotas and the price discipline of tariffs."

According to Sampson's scheme, the current bilateral export restraint arrangements would first be converted to category-specific quotas on a nondiscriminatory basis. Imports within the tariff quota would be at the MFN rates. The tariff quotas would not restrict the absolute volume of imports of the product category because imports exceeding the quota limits would be permissible provided that an additional penalty rate of duty is paid. At first, the penalty rate would be sufficiently high to discourage out-of-quota imports. Within the tariff quota "each restrained country would be permitted to maintain its export entitlement."

The next step would be a gradual move to nondiscrimination and liberalization. The former would be brought about "by the importing country removing each year a set percentage of each restrained country's

export entitlement for each product category and placing it in a global pool to be auctioned by the importing government." Imports under the global pool would be at the MFN tariffs. As the global pool increases every year, the market share of the more competitive countries would also increase. In the course of time, the export entitlements would vanish and leave only the global pool.

Liberalization would be brought about by a progressive reduction of the penalty tariff for out-of-quota imports. While the penalty tariff was originally prohibitive, it would be reduced (at the same time as the pooling process was taking place) to a level where it would eventually coincide with the MFN tariffs. At that point, the tariff quota loses all significance and imports can take place at the MFN rates from any source.

The key features of the scheme, according to Sampson, would be negotiable. "The share of the restrained exports going into the common pool, the number of years over which the bilateral restraints are to be phased out, the initial height of the penalty tariff and the rate of its reduction are some examples." Auction of the global pool does not appear to be an intrinsic part of the scheme but seems to be more in the nature of an inducement for the importing countries to move out of the MFA. Presumably the auction of quotas would also be negotiable. There would be a gradual loss of rent for the exporting countries, as the share of quotas for auction increases. At the same time, however, their market access would improve as the penalty tariff rate fell. There is, of course, a cost involved, but as Bergsten has observed, "the lesson is clear: it is costly to establish quotas, to maintain them over time and to dismantle them as well."²³

(vii) A simplistic form of tariff quotas could be devised in a more orthodox and GATT-consistent manner as an interim arrangement for purposes of integration into GATT. Each importing country could select the textile categories out of the present restricted ones which, in its view, require the protection of tariff quotas. The rest of them would be eliminated. A tariff quota would then be instituted for each selected category on an MFN basis covering all suppliers. There would be allocation of country shares within the tariff quota in accordance with the principles of distribution laid down in Article XIII:2 of the General Agreement.

The base level of the tariff quota would be determined, taking into account the average imports of the past three years from all sources in the particular category. The quota would annually increase by a fixed percentage to be negotiated multilaterally. The country shares allocated in the tariff quota need not increase correspondingly. The intention should be to reduce the country bias progressively. The unallocated quantity in the tariff quota would gradually increase and would be available for imports from any source.

The imports within the tariff quota would be at the prevailing MFN tariff rates. Imports exceeding the quota would face a sufficiently high surcharge to discourage imports at the beginning. The surcharge would be reduced in graduated stages over a reasonable time-frame to coincide ultimately with the prevailing MFN tariff. The height of the surcharge, the rate of its reduction and time-frame would need to be agreed upon multilaterally.

It could be assumed that the Uruguay Round would result in an agreement, as in the previous Rounds, for a phased reduction of nominal tariffs including those of the textile sector. There would then be downward movements of the nominal tariffs as well as the surcharge. The pace of the two movements could be determined in such a manner that the gap between the two narrows progressively until they converge.

Conclusions

This paper has dealt with the future of the MFA which is the principal GATT-inconsistent regime in existence. Some of these modalities could also be employed to deal with the other GATT-inconsistent systems, if the participants decide accordingly.

It is evident that technically there are numerous options available to achieve the negotiating objective in the textile sector. The preparatory phase of the negotiations in the Uruguay Round was completed in 1988.

The participants are expected to engage in substantive negotiations shortly to devise an appropriate modality for the progressive integration of the textile trade into the normal working of GATT. The success of the negotiations will largely depend upon how far the process of integration is politically acceptable to the MFA restraining countries. Their domestic industries, having enjoyed the benefits of prolonged protection of continually increasing intensity, will not readily accept a change in the rules of the game. They are insisting on certain accompanying measures. As a result, there is some hesitation on the part of the major trading nations. The European Community is reported to be "unwilling to accept an end to the Multifibre Arrangement."²⁴ The United States has not yet declared its intentions. Sweden, however, has announced its decision to dismantle the MFA restrictions by the end of July 1991. It is understood that Norway is also thinking along similar lines. Nonetheless all participants have recognized the importance of textile negotiations in the Uruguay Round at the time of its mid-term review in April 1989.

The impact of dismantling the MFA is unlikely to be the same in all the importing countries or for all the segments of trade. The restrictions cover different proportions of imports, concentrating on some segments while leaving some areas relatively free. These variations reflect, to some

extent, the competitive status of the different components of the domestic industry. It is generally seen that the technological developments in the production process of the textile sector have largely neutralized the cost advantage (on account of lower wages) of the imports from the restrained countries. The domestic industry in this area is now in a better position to withstand overseas competition. The situation in the clothing sector is, however, different. Though there are numerous possibilities of technological innovations on the horizon, their commercial efficacy is still to be tested. This differential situation is likely to be reflected in the selection process of the modality for integration. It should be noted that some of the modalities are capable of taking this aspect into account. The selection of such a modality is likely to render the process politically acceptable.

The political acceptability of the process of integration is also likely to be influenced by the extent of its capacity to respond to unforeseen developments during the transition period. The domestic industry may need some reassurance in this regard. The process, for this purpose, could include provision for periodical reviews of its progress and of the emergent situation. While maintaining the irreversibility of the process of integration, it could, nevertheless, permit, if the intervening circumstances required, some multilaterally agreed adjustment in the pace of transition. In critical circumstances, the possibility of taking recourse in the safeguard measures under the General Agreement following the usual procedures may not be precluded.

The return of the textile sector to GATT implies that trade would be conducted along the normal rules of competition. It means that market forces would govern the transactions, with price and quality of the products as the determinant factors. It means then that there are no price manipulations by governmental interventions to obtain a better share of the market. It means also that the marketability of the products is not improved by the improper use of trademarks, etc. Indeed, it does not seem necessary to strengthen comparative advantage by the use of such artificial props or similar actions. An assurance by the participants that the normal rules of competition will be respected is likely to enhance the political feasibility of the process.

The domestic industry of the developed countries expects that the integration of the textile sector should be accompanied by a reciprocal opening of the textile markets of the exporting countries. Presently there are many developing countries which do not maintain any restrictions on the imports of textile goods. One of them is a large exporting territory which is also a large importer providing duty-free entry. There are some others which exercise some restraints on imports in accordance with Article XVIII of the General Agreement. Their scarcity of foreign exchange forces them to favor the importation of goods to further their

economic development at the expense of consumer products. Some of them are already engaged in an autonomous process of progressive liberalization of their import regimes. It is, however, evident that tariffs on textiles in almost all the developing countries are levied at an abnormally high level, reflecting perhaps their needs of revenue generation. Nevertheless, there are some possibilities in this area which could be explored to advance the process of negotiations. It may be possible to accelerate the pace of liberalization in some cases, to ensure against unwarranted reversals in the trend toward liberalization in others, or to provide more predictability in terms of access by tariff reductions and bindings. It must, however, be understood that the process of integration will not be held up until the developing countries are able to liberalize completely their import regimes for textiles.

Sectoral reciprocity is not always a feasible proposition in a multidimensional enterprise like the Uruguay Round. It was possible to strike a balance in the exchange of concessions when tariffs were the sole items of negotiation as in the earlier rounds. The experience of the Tokyo Round shows that the participants may have to settle for an overall balance in the package of results of the negotiations. It implies that some gains would be made in some areas of the negotiations while concessions are made in others. This interplay of interests should not be lost sight of in the overall balance of benefits.

The underlying assumption in striving for integration of the textile sector should be that the fundamental principle of nondiscrimination would continue to govern the workings of the GATT safeguard mechanism. If that is not the case, then "instead of bringing the MFA within the GATT," in the words of Martin Wolf, "one would be turning the GATT into MFA."²⁵

Notes

1. See also address by Arthur Dunkel, Director-General of GATT, to the International Textiles and Clothing Bureau, Geneva, 15 September 1988.

2. There are twenty-seven developing countries in the MFA, of which thirteen have invoked Article XVIII of the General Agreement. Among them, two do not maintain restrictions on the MFA products and most of the remaining are progressively liberalizing their regimes in an autonomous manner, including some of the heavily indebted countries. There are ten other countries which do not restrict the MFA products at all.

3. Statement of M. G. Mathur, Deputy Director-General, GATT, on "Textiles and the Multilateral Trading System" at the *Financial Times* Conference, London, 11 May 1987.

4. Gerard Curzon and others, *MFA Forever?* (Trade Policy Research Centre, London, 1981), p. 39.

5. Martin Wolf, "How to Unravel the Multifibre Arrangement," *The World Economy*, September 1985, p. 243.
6. *The Uruguay Round of Multilateral Trade Negotiations under GATT* (Atlantic Council of the United States, Washington, 1987), p. 43.
7. Vincent Cable, "Textiles and Clothing in a New Round of Trade Negotiations," *The World Bank Economic Review*, Vol. 1, 1987, p. 639.
8. GATT, *Textiles and Clothing in the World Economy* (Geneva, 1984) pp. 90–100 contains an analysis of quota utilization.
9. Joseph Pelzman, "The Multifiber Arrangement—Is There a Future Post Uruguay Round?" in *Issues in the Uruguay Round* (NBER, Washington, 1988), p. 55.
10. Vincent Cable, op. cit., p. 639.
11. Gary C. Hufbauer and Jeffrey Schott, *Trading for Growth—The Next Round of Trade Negotiations* (Institute for International Economics, Washington, 1985), pp. 56–60.
12. C. Fred Bergsten and others, *Auction Quotas and United States Trade Policy* (Institute for International Economics, Washington, 1987), pp. 5–7, 140–42, 173–79. Bergsten's use of the phrase "global quota" is rather misleading because it is not really global.
13. Testimony of Fred Bergsten before the U.S. House Ways and Means Committee reproduced in *Textile Asia* (Hong Kong), April 1987, p. 22.
14. Neil Ferry, "Australia—a New Textiles and Clothing Protection System," *Textile Outlook International* (London), March 1987, pp. 38–39.
15. A strong case against quota auctions has been made by Laura Megna Baughman, "Auctioning of Quotas," *The World Economy*, Vol. 11, No. 3, September 1988, pp. 387–415.
16. Martin Wolf, "How to Unravel the MFA," *The World Economy*, September 1985; and "Time to Plan an End to the MFA?," *Textile Outlook International*, September 1985.
17. Morris E. Morkre, *Import Quotas on Textiles—The Welfare Effects of the United States Restrictions on Hong Kong* (Federal Trade Commission, Washington, 1984), pp. 7–11.
18. Carl Hamilton, "Follies of Policies for Textile Imports in Western Europe," *The World Economy*, Vol. 8, 1985.
19. William R. Cline, *The Future of World Trade in Textiles and Apparel* (Institute for International Economics, Washington, 1987), pp. 166–69.
20. Joseph Pelzman, "The Tariff Equivalents of the Existing Quotas under the MFA" (mimeo 1988).
21. William R. Cline, op. cit., pp. 257–62.
22. Gary P. Sampson, "Pseudo-economics of the MFA—A Proposal for Reform," *The World Economy*, Vol. 10, December 1987.
23. C. Fred Bergsten and others, op. cit., p. 140.
24. Statement of Commissioner Willy de Clercq in the European Parliament, *European Report*, 18 January 1989.
25. Martin Wolf, op. cit., p. 244.

11

Some Considerations on the Multi-Fibre Arrangement: Past, Present and Future

Marcelo Raffaelli

So much has been written about the costs and benefits of protection in general, and of the Multi-Fibre Arrangement (MFA) in particular, that I do not feel the need for an introduction repeating what has been said so competently in publications of the OECD, the World Bank and GATT, and in works by Cable, Dohlman, Hamilton, Sampson, Silberston, Martin Wolf, and others. I start, therefore, from the proposition that the MFA has harmed consumers in importing countries by forcing them to pay more for their clothing and textile products and has harmed exporting countries by reducing their potential export revenues and employment opportunities, while leading to a less than optimal allocation of resources in both importing and exporting countries.

In the first part of this paper, I shall comment on the effects the implementation of the MFA has had on exporting countries. In the second section, I present some preliminary thoughts on how to do away with the MFA. Appendix 11A shows how the MFA has had the effect of increasing barriers to trade instead of reaching its avowed objective of liberalizing trade. Appendix 11B demonstrates the effects in Latin America and the Caribbean, an area of lesser importance in international trade in textiles and clothing and therefore less talked about in the literature on the MFA.

I consider the MFA as a political solution to a trade problem that was raising parochial calls for protectionism in some developed countries. The agenda of the 1959 session of GATT Contracting Parties contained no mention of "market disruption"; at the request of the United States,

the plenary decided to discuss "avoidance of market disruption" before the term had been defined and, therefore, before determining whether the provisions of the General Agreement were appropriate to (in the words of Mr. Douglas Dillon, the U.S. representative at the ministerial level) "find the means to ameliorate the adverse effects of an abrupt invasion of established markets while continuing to provide steadily enlarged opportunities for trade." A working party appointed in June 1960 was, in its report, "of the view that it would be desirable for the CONTRACTING PARTIES to place on record that they recognize the existence of a problem which as (sic) been called 'market disruption.' Having recognized the existence of such a problem the CONTRACTING PARTIES should establish procedures to facilitate consultations on these problems."

From the beginning it was a game with a foregone result. Both the Cotton and the Multi-fibre Arrangements were supposed to deal with an economic concept: market disruption; unfortunately for the developing countries, almost all developed participants applied these arrangements with politics, not Economics, in mind, and developing countries, being less able to retaliate, were sacrificed to appease the protectionist lobbies. As had been the case in the working party on "market disruption," so also in both textile Arrangements the notion of comparative advantage was ignored, and competitiveness became something threatening: "low cost" (incidentally, a much used term that does *not* appear in the MFA) is implied to be the result of disreputable maneuvers such as paying slave wages, receiving hidden subsidies, and so on.

This interpretation is a distortion of the market disruption definition found in the MFA, according to which the "disruptive" imports can come from any country, developing or developed. But at this point a political (and cynical) defense is offered by the countries applying restrictions: "the MFA *allows* one to apply restraints but does not *force* one to do so. Therefore, even if a developed country causes market disruption to a second developed country which applies restrictions to developing countries, the latter developed country is not obliged, under the MFA, to restrain the former." This position is explained by the argument that developed countries maintain open markets for trade between themselves and implies that open markets do not exist in developing countries, which of course is untrue, both for large suppliers such as Hong Kong and Singapore, and for Costa Rica, Sri Lanka, Uruguay and others that have no restrictions on textile imports.

Effects of Present Arrangements on Exporting Countries Participants in the MFA

As a start, one must distinguish between those long-suffering exporting countries which have been under restraint since the beginning of the MFA and those which are newcomers as exporters of textiles. The former have seen a curtailment of their possibilities to expand exports of products for which they hold a competitive advantage. For some countries, it is a matter of only a few items; for others, it is a matter of seeing a long list of products placed under limit.

For the new entrants (the MFA parlance for newcomers), it can be a very different story: some became exporters of textiles and clothing due to the impossibility of efficient producers exporting all that the market would take. These new entrants are, in a sense, creatures of the MFA. But there are other newcomers which would have appeared on the scene in any event; China is the example that comes immediately to mind.

By "exporting countries" we shall understand, as in the MFA fora, those countries suffering restrictions to their textile exports: developing countries and a few Eastern European countries.¹ Japan, which is under restraint in the United States, is considered in the MFA fora as an importing country.

The implementation of the Arrangement had several specific effects on the exporting countries, albeit they do not affect every country the same way. But a list, at least partial, might include the following effects:

- limitation of competitive exports;
- disruption to individual lines of production;
- transference of resources to less efficient lines of production;
- discouragement and/or distortion of investment;
- switch from less sophisticated products to different, more sophisticated products;
- improvement in quality;
- transference of production to third countries;
- fight for a guaranteed share of the market;
- quota ownership and attendant problems;
- costs of quota management;
- political costs.

Limitation of Competitive Exports

While it seems tautological that quotas will limit competitive imports, quotas are sometimes imposed and maintained on products that at a certain moment enjoyed an upsurge in exports due to factors that have little to do with competitiveness. Generally, however, quotas are intro-

duced to limit competitive imports, thus restraining legitimate export possibilities of the exporting countries.

There are many cases of exporting countries being unable to export more because the quota ceiling has been reached (see Table 11-1); every case in which the exporting country has to avail itself of the flexibility provisions of the bilateral agreement (swing and borrow-forward, also called carry-forward) is a case where the quota had a limiting effect on the country's possibility of exporting more of a competitive product. The harm is compounded if the annual growth rate is below the MFA's norm of 6 percent.

Furthermore, quota distribution or allocation can seldom be so efficient that no waste of quota exists. It can be safely assumed that if a quota is utilized at a level of 80 or 85 percent, then the exporting country would, in the absence of a quota, have exported more than its full level.

Disruption to Individual Lines of Production

One of the basic objectives of the MFA is "ensuring the orderly and equitable development of this trade (i.e., world trade in textile products) and avoidance of disruptive effects in individual markets and on individual lines of production in both importing and exporting countries." Notwithstanding, one of the practically inevitable effects of quotas is the disruption of individual lines of production in exporting countries.

Application of the MFA with an eye on domestic constituencies has resulted, in many instances, in premature requests for consultation, with a detrimental effect on trade, as uncertainty is generated or, worse, orders are either suspended or cancelled, the importer in the importing country having chosen to look for an alternate source of supply.

Sometimes the request for consultations is accompanied by the imposition of a temporary restraint, designed to avoid a surge in imports during the consultation period. Such temporary measures have a disruptive effect, even if at the end of the consultations it is agreed that there was no basis for a restraint.

Disruption to the exporting country can also occur when the importing country insists on the establishment of a "group limit" which covers, among others, products that are neither causing market disruption nor posing a real risk of market disruption, in other words, products which are not subject to quotas but whose exports cannot freely develop due to the ceiling established. This is in contradiction with the original complaint of importing countries; namely, that trade was concentrated "in a narrow range of commodities," to use again Mr. Dillon's words; for this reason, both the cotton and the multi-fibre arrangements refer to "disruptive effects . . . on individual lines of production."

Table 11-1 Examples of Quotas that Undoubtedly Hamper the Development of Competitive Exports

| | 1983 | | | 1984 | | | 1985 | | | 1986 | | | 1987 | | |
|---|--------|---------|-------|-----------|-----------|-------|-----------|-----------|-------|--------|---------|-------|-------|---------|-------|
| | Quota | Imports | I/Q | Quota | Imports | I/Q | Quota | Imports | I/Q | Quota | Imports | I/Q | Quota | Imports | I/Q |
| Canada/Hong Kong—sweaters, pullovers and cardigans (1,000 pieces) | | | | | | | | | | | | | | | |
| | 7,036 | 7,036 | 100.0 | 7,142 | 6,281 | 88.0 | 7,178 | 6,859 | 95.6 | 7,285 | 9,157 | 125.7 | 8,387 | 9,083 | 108.3 |
| Annual growth rate: 0.5% or 1.5% (1982-1986), according to whether 90% or more of the quota was used; 0.75% from 1987 | | | | | | | | | | | | | | | |
| EC/Brazil—Cat. 1, cotton yarn (tonnes) | | | | | | | | | | | | | | | |
| | 27,644 | 33,205 | 120.1 | 27,644 | 31,419 | 113.7 | 27,671 | 30,222 | 109.2 | 27,699 | 29,995 | 108.3 | | | |
| Annual growth rate: 0.1% | | | | | | | | | | | | | | | |
| EC/Romania—Cat. 13, knitted or crocheted undergarments (1,000 pieces) | | | | | | | | | | | | | | | |
| | 9,211 | 12,495 | 135.7 | 9,395 | 11,237 | 119.6 | 9,583 | 9,758 | 101.8 | 9,775 | 11,492 | 117.6 | | | |
| Annual growth rate: 2% | | | | | | | | | | | | | | | |
| United States—Cat. 341, woven cotton blouses (dozens) | | | | | | | | | | | | | | | |
| Hong Kong | | | | 2,465,874 | 2,560,032 | 103.8 | 2,478,203 | 2,501,894 | 101.0 | | | | | | |
| India | | | | 2,402,573 | 2,690,756 | 112.0 | 2,474,650 | 2,448,435 | 98.9 | | | | | | |
| Annual growth rate: Hong Kong 0.5%; India 3.0% | | | | | | | | | | | | | | | |

Note: Examples chosen at random. Data derived from GATT documents, the World Bank database or country sources. Shipments above the quota levels were possible due to the application of swing, carryover and carry forward provisions.

Transference of Resources to Less Efficient Lines of Production

If a product is placed under limit, its line of production may be forced to be cut down, and, to avoid leaving idle equipment and/or labor, it may be decided to start production of another product under less efficient conditions. Resources are thus allocated less efficiently, and a less viable structure of production may be set up.

Discouragement and/or Distortion of Investment

The existence of quotas discourages investment in the restrained country, and not only in products already under restraint. It has been seen in the MFA fora how an exporting country, once having had one product under restraint, usually finds that diversification into other products only results in an increase of the number of products under restraint. Domestic capital, if it cannot be invested in textiles, is probably invested in some other activity in the same country; foreign capital, if it cannot be invested in textiles, will not perhaps be interested in investing in any other sector in that country. A distortion will also occur if, for instance, the domestic capital is diverted to a second-best option or if the foreign capital is applied in the textile sector of an importing country. (See "Transference of Production to Third Countries," below.)

Switch from Less Sophisticated to Different, More Sophisticated Products, and Improvement in Quality

In order to make the most of its resources, a producer may switch production from less sophisticated products to different products with higher value added; for instance, it may switch from knitted underwear to knitted dresses. This may be said to be a beneficial effect, at least to those industrial concerns that succeed in making such a switch. The switch may also be made toward better quality of the same product: for instance, from cheap sweaters to high quality ones, from T-shirts to knitted designer shirts, etc. The best-known example of these two occurrences is that of Hong Kong, whose share of textiles (defined here as yarns, fabrics and made-ups) in total exports has fallen, while that of high quality and design clothing has increased.

These switches or improvements can, however, constitute further examples of distortions of efficient resource allocation in both exporting and importing countries.

Transference of Production to Third Countries

This effect results from action by both exporting countries and importing countries. Japan, Hong Kong, the Republic of Korea and India (in Nepal) have set up subsidiaries or joint ventures abroad in order to meet the demand in importing countries in excess of their own quotas for the products concerned.

But importing countries have also transferred production abroad, and while it cannot be said that these initiatives were, in all cases, due to the existence of the MFA, they may have been, at least in part. In the case of U.S. investments in the Caribbean and Central America, the MFA-derived supply constraints may have played a role.

All such transfers have the effect of increasing the number of suppliers of textile products, some of them, as said above, being "nonspontaneous" exporters. As explained in the previous section, it can lead to less efficient allocation of investment, on a global scale, than would occur in a free-trade situation.

Finally, one word of caution. The existence of the MFA may also discourage investment abroad if the prospective investor fears that his future production can become subject to a quota. All will depend on the psychology of the investor.

Fight for a Guaranteed Share of the Market

One of the effects of the perpetuation of the MFA is that many exporting countries have become accustomed to it, or have decided that since it is useless to fight for free trade, they had better fight for a larger slice of the restricted market.

This has led to some exporting countries agreeing to restraints for products that are in no way posing a risk of serious damage to the importing country. The protectionist lobby in the importing country is happy, because it has secured a restraint, and the exporting country is happy, since it has acquired, at no cost (or so it thinks), a share for future development of exports in which it has little or no interest at the moment. These cases of myopia are, unfortunately, numerous.

They also seem to give credence to statements by importing countries' governments and protectionist lobbies that the MFA was conceived as a market sharing arrangement, and that what matters is not to liberalize trade, but rather to apportion equitable shares of the market (among developing countries, of course, since developed countries do not have to worry about the MFA).

Quota Ownership and Attendant Problems

Much has been written on quota ownership, quota sales and quota rents. The truth is that the problem is not as widespread as the literature on the MFA suggests. I suspect that this distortion derives from the fact that everyone researching the MFA of necessity goes to Hong Kong; not only is it the most important MFA exporter, but has a long tradition of being under restraint and, very important to the researcher, has an efficient and open administration of its MFA agreements.

Once in Hong Kong, the researcher becomes acquainted with: (a) how quota rights may be sold; (b) how some quota owners make a living just from selling their quotas; (c) how in these cases, the export price may be increased by an amount equivalent to the price paid for the quota; and (d) how, in cases regarding a few products, the importer may find himself bidding against other importers in order to buy from a Hong Kong producer.

These findings have led to some confusion, for the reasons exposed below. To begin with, one should distinguish what has been called "quota rent" from what I shall call "quota sale price" and from plain profit.

"Quota rent" has sometimes been described as the over-price an exporter collects in the cases described in (d) above. But such instances are not the rule; in the case of most textile products, the importer is able to find other countries, restrained or not, with both quota (if the country is restrained) and quality, from which to buy. Thus, as a rule he will not find it necessary to bid against other importers.

"Quota sale price" would be the amount of money for which the quota owner sells his quota, as described in (b) above. Again, this is not the rule: many exporting countries do not grant ownership of the quotas, but only a preference in quota allocation, to firms which have exported previously. Usually this preference is lost if the quota is not utilized. Also, even in countries which allow quotas to be sold, most quota owners prefer to use them, not to sell them.

If the quota was bought, it is not sure that all of the amount paid by the exporter will be passed on to the buyer: the whole amount or just part of it may be added to the sale price, or nothing at all. The price will depend on "what the market will bear," be it in countries where quotas are owned and may be sold, or in any other country.

And then there is the profit which normally accrues, in commercial transactions, to the seller. I do not believe that it has been demonstrated that the profit is higher for textile products under quota.

It would be wrong, therefore, to conclude that quotas bring an extra benefit to the exporting country, as such a conclusion would be based on a distorted observation. Of course, I agree with those who say that

the consumer in the importing country will in the end pay a higher price, as this is the point of the whole exercise: to create a scarcity so that the protected producers in the importing country will be able to keep their prices high and, in consequence, themselves in business.

Nevertheless, there is no doubt that ownership of quotas—*where it exists*—has certain effects in exporting countries: a) potentially competitive producers may find themselves shut out of the picture; b) the individuals who own quotas become interested in the maintenance of the restrictive system.

In any case, the redistribution of quotas in order to accommodate new exporting concerns is usually a headache for those administering the quotas in the exporting country, and is a problem linked to "Political Costs," discussed below.

Costs of Quota Management

While I know of no calculation of the cost of managing quotas, it must add up to a considerable amount. In Hong Kong alone, hundreds of people work for the government in order to issue export authorizations and keep track of quota utilization. There is also, inevitably, some cost to the exporting companies, which must follow a number of steps in order to obtain their permits, etc. Some costs also exist for the importer, who must make sure that the quota is not fully taken, obtain an import license, and so on. Finally, the government of the importing country has also to bear the cost of controlling quotas.

In the United States, where about 830 limits were being applied *under the MFA* in July 1988, the cost must be large.² The same goes for the twelve members of the European Community as well as for the European Commission, in their administration of some 470 quotas being applied *under the MFA* in July 1988.³

For developing countries, the cost of managing quotas is relatively larger, in terms of misallocated human resources.

One further cost is represented by the fact that quota management implies bureaucratic discretion, with the possibility of some uncertainty being introduced in the process. Replacing quotas by reasonable tariffs would avoid the cost of managing quotas and practically eliminate the risk of bureaucratic discretion.

Political Costs

Besides financial costs, the MFA also exacts political costs. The acceptance of a restraint may become a political burden to the government of the exporting country. The allocation and redistribution of quotas

among exporting concerns are other examples of political costs to the government.

* * *

The MFA also has effects on importing countries. They are the reverse of some of the effects listed above: limitation of competitive imports, discouragement of investment abroad, costs of quota management, and political costs of requests for restraints.

But there is another effect, of a political nature, affecting both importing and exporting countries: once restraints are introduced on textiles, officially defended and justified, other sectors inevitably ask: "Why not me too?" It is interesting that the negotiators of the MFA deemed it necessary to say in its Article 1, paragraph 7, that "since measures taken under this Arrangement are intended to deal with the special problems of textile products, such measures should be considered as exceptional, and not lending themselves to application in other fields." They knew they were setting down a bad example!

The "low cost" brand, once imposed with regard to the textile sector, has been extended to other economic activities. If a new safeguard clause were approved in the Uruguay Round of GATT, allowing for selective safeguards, I fear its application would follow the MFA pattern, and that safeguards always would be applied selectively and only to countries already branded as "low cost" (i.e., developing countries and Eastern Europe).

Some Preliminary Thoughts on How to Phase Out the MFA

Any approach to the termination of the Multi-Fibre Arrangement must be political, as it is evident that the reasons for keeping the MFA in place owe more to politics than to Economics. It does not seem sufficient, therefore, to plead for the mere elimination of the MFA on the basis of its running counter to sound economic theory; after all, much ink has already been spilled by academia, governments and international organizations, denouncing how any form of protectionism results in the misallocation of world resources, and so on. It must be recognized that the international environment has not changed to the point of economic arguments carrying the day. Therefore, a political gesture is necessary, in the form of mutual concessions between importing countries on one side, and exporting countries on the other.

But before we go into that, it is useful to recall that a solution, or gesture, may take many different aspects, and that even a political solution should not be offered with disregard for the current environment and for the changes that may be expected in it.

Divination is not my subject, but I believe that in reflecting on how to liberalize trade in textiles and on the consequences of such liberalization, one should bear in mind the following important elements (this list is by no means exhaustive):

- the world population growth, the need to allocate more land and capital for food production and the need for increased textile production;
- a probable improvement in the living standards of some developing countries;
- the large increase in fiber production planned by China until the year 2000;
- whether Japan will accept a role as a large net importer;
- new production methods which stress labor-saving and automatization, robotization, etc.;
- new management and marketing methods (Quick Response, for instance);
- the fate of "nonspontaneous" exporting countries;
- breakthroughs in nonfiber clothing;
- further expansion of the use of textile products for industrial purposes.

The thoughts presented in this section are, as pointed out in the title, of a preliminary nature. They do not exclude the possibility of other elements which either side considers essential for the acceptance of the scheme.

But it is my opinion, at this moment, that the political gesture I consider necessary could take the form of an agreement on the part of exporting countries to accept what would be definitively a phase-out of the MFA in the shape of some seven or eight years more of the MFA (or of an MFA-type arrangement), thus extending the period of protection accorded to the textile industries of developed countries practically to the end of the century. On the importing side, the gesture would be the acceptance of a definitive end to the period of special protection enjoyed by their textile industries since 1961.

For those impatient to do away with the MFA within a little more than two years (it will expire on 31 July 1991), a further seven or eight years will seem too much. But it is only by agreeing on a very long period that governments will have an argument to silence the protests from the protectionist lobbies: "Do you seriously argue that after thirty years of protection, an additional seven (or eight) years will still not suffice to put your house in order?"

This phase-out period would not be equally disadvantageous to all exporting countries. One of the realities we must face is that the MFA's

existence did encourage the entrance of several countries into the export of textiles and clothing that otherwise would not have become involved; I can mention, both within and without the ranks of the MFA members, Sri Lanka, Indonesia, Mauritius, Maldives, Panama, and Nepal, among others.

The phase-out period would thus grant a breathing space to allow these "nonspontaneous" exporters to adjust their economies to the quota-free environment that will exist once the MFA finally disappears. Perhaps they will find ways to remain competitive; perhaps they will move to other economic activities where they will be competitive.

Some Comments on Mixed Quota Formulas and on Auctioning of Quotas

Several distinguished students of the MFA have suggested that a system of concomitant and progressively-replacing quotas be used as the way to phase out the MFA quotas; another suggestion is that quotas be auctioned during the phase-out period as part of the liberalization mechanism. Without in any way rejecting, or even criticizing these suggestions, which cannot be considered in isolation from other elements of the phase-out program, I would nevertheless like to flag a few points.

The first is that under the "strengthened GATT rules" mentioned in the Punta del Este Declaration, which presumably means more expeditious ways to deal with dumping and subsidies, tariffs would become much more effective instruments of protection. Extremely high, even if only temporary tariffs, if applied for any period longer than something like one year, could result in a distortion of textile trade patterns lasting much longer than necessary to just smooth over the phase-out.

The second point is that since governments tend to become addicted to income, the revenue derived from auctioning of quotas might prove too tempting for the Treasury of the importing country to give up. We should be careful to not sponsor a marriage of the protectionist lobby to the ministry of finance; the result might be that the phase-out period would be followed, in some countries, by Article XIX actions which imposed quotas to be auctioned by the importing country. It pays to be pessimistic when it comes to textiles!

The third point is that all schemes for the phase-out period have the same features: (i) a time-frame sufficiently long and which is nonextendable by any country; (ii) progressive liberalization, so as to avoid shocks in both importing and in less-efficient exporting countries; (iii) an end to all measures agreed or imposed under the MFA; (iv) an effective system of surveillance of the phase-out process; (v) arrival, at a prede-

terminated and unchangeable date, at a situation where trade in textiles and clothing is totally and solely covered by GATT rules. All these features should be covered by an agreed text that would be mandatory to all the MFA participants.

To achieve this aim, several routes might be offered. However, it seems to me that the route of liberalization in the context of an MFA-like solution has the advantage of being "the devil we know."

After all, the experiences of Norway under a global quota and of Australia, which since 1975 has applied a system of tariff quotas and auctioning of quotas, cannot be said to have led to more competitive industries in those countries or to a speedy liberalization of their restrictions. As a matter of fact, Australia has had in force, since 1 July 1987, a plan for restructuring and revitalizing its textile, clothing and footwear industries which will remain in force until 1996 (a major review of the operation of the plan will be conducted in 1992; presumably, this might mean that the plan will not necessarily end in 1996).

What we face in the MFA is a political problem that has been dealt with on the basis of a pseudoeconomic solution; to argue that an economically sound solution is necessary for the phase-out does not impress me, as what we are talking about is politics.⁴ Besides, I believe, as said above, that an MFA-based solution can allow for progressive liberalization, minimization of "shocks" and an effective surveillance system.

Suggestion of a Possible Modality for Phasing Out the MFA

For all the reasons expounded above, this suggestion is, on purpose, traditional and pedestrian: it is based on the existing system, dominated by the MFA.

It bears in mind, among other things, that the MFA's existence has encouraged many countries to become exporters, and that as a result importing countries (which are directly responsible for the creation of the MFA and indirectly for the appearance of new exporters) are now being supplied by a large number of countries, whether restrained or unrestrained, either developing new entrants, long-established developing suppliers or developed exporters.

If the basis for restraints continues to be the occurrence of "market disruption" *as now defined in the MFA*, then it must be accepted that only the relatively large suppliers can cause market disruption, or in other words, can cause serious damage to the domestic industry of the importing country, since "cumulative disruption" is not an MFA concept.

Finally, and since the MFA does *not* reflect, *in its implementation*, a balance of interests between importing and exporting countries, this suggestion aims at introducing some balance by improving the treatment accorded to exporting countries.

The *first* element of the suggestion is, thus, the termination on, say, 1 January 1992 of each restraint whose level for 1991 (last year of the MFA IV) represented up to X percent of the apparent consumption (i.e., production plus imports minus exports) of the importing country concerned for each product (i.e., on a product-by-product basis). This percentage should be raised by steps at different stages of the phase-out period: for instance, to $X + 1$ percent on 1 January 1994 and $X + 2$ percent on 1 January 1996. The result would be that the smaller suppliers of each product would see their restraints liberalized, so that by 1996 only the largest suppliers of the domestic market *for each product* would still be under restraint. The removal of smaller quotas would have the additional advantage of cutting down the burden of quota administration in both exporting and importing countries.

A *second* element would be that after, say, 1 January 1992 only restraints justifiable under Article 3 of the Arrangement (cases of market disruption) might be introduced, but only if the exporting country has also taken over at least Y percent of the apparent consumption of the product (the percentage in this element must be higher than that, under the first element, at which quotas would be eliminated). This percentage could also be progressively raised at different moments of the phase-out period.

The idea of only allowing new restraints in Article 3 cases is to stop the abuse of Article 4, under which agreements are sometimes "freely" negotiated at gunpoint and sometimes negotiated with the enthusiastic participation of an exporting country which accepts *any* deal as long as it gets a little more quota for a few products. Removing the possibility of using Article 4 could make the system more decent and also stiffen the backbone of some too compliant exporting countries.

Starting on, say, 1 January 1996 restraints could not be introduced or extended *unless* the Textiles Surveillance Board (TSB) *explicitly consented* to such introduction or extension, thus taking away the possibility, now present under Article 3, of the importing country deciding unilaterally to impose restraints, even in disagreement with the exporting country.

A *third* element would be a corollary of the previous one: no agreement concluded under Article 4 before 1 January 1992 could be renewed or extended, once expired. If any of the products restrained by the agreement were still a source of market disruption after the expiry of the agreement, a new restraint would have to be justified under Article 3, *all other elements of this suggestion being taken into account*.

But since the MFA expires on 31 July 1991, importing countries could bring great pressure to bear on exporting countries (at least on weaker ones) to conclude in the course of 1991 agreements which would be valid until, say, 2000 or 2005. Therefore, a *fourth* element: all agreements

concluded under Article 4 would automatically expire no later than 31 December 1996.

A *fifth* element would refer to annual growth rates⁵: from 1 January 1992, for instance, no growth rate could be less than 6 percent a year. In order, however, to make this approach more palatable to the protectionist lobbies, it might be agreed that growth rates lower than 3 percent would be raised not to 6 percent, but to 4 percent for the moment. The minimum growth rates would be increased by steps during the phase-out period; for instance, in 1995 they would all go to 8 percent, and to 10 percent in 1997. These increased growth rates would be valid both for agreements previously concluded (several countries have already negotiated, under the MFA IV, agreements going beyond 1991, and more cases may occur between now and the beginning of the phase-out period) and for the restraints introduced in accordance with the second element above.

Low, even extremely low growth rates have been diversely justified as: (a) a means to avoid recurrence of market disruption; (b) the result (in cases of wide-ranging Article 4 agreements) of a negotiation in which a lower growth rate was agreed in exchange for another feature more advantageous to the exporting country; (c) the way to avoid endangering the maintenance of a minimum viable production; and so on.

One should not be distracted by these explanations, which are valid fewer times than they are invalid. Very low growth rates are employed in the case of large exporting countries (the so-called "predominant suppliers," i.e., Hong Kong and Korea) even in relation to products of which they are medium or small suppliers and where recurrence of market disruption obviously could not take place even if the normal 6 percent growth rate of the MFA were granted.

Very low growth rates have been and are still being employed by the Nordic countries, which claim that these rates are all they can afford if they are to maintain a minimum viable production of items for which their markets are entirely open when the supplier is a developed country, *any* developed country.

Very low growth rates have also been uniformly applied by the United States in the case of wool products. Whatever the product, whatever the size of the quota, whatever the *status* of the exporting country, whatever the shape of the particular line of production affected, the United States has never granted to any wool product a growth rate higher than 1 percent.

A *sixth* element for the phase-out period, consistent with the shift to allow new restraints only in cases of market disruption, could be the discontinuance on, say, 1 January 1992, of all aggregate and group limits, i.e., those limits which encompass products not subject to specific restraints, for the simple reason that if those products do not pose a real

risk of market disruption, much less cause market disruption, they should be completely unfettered.

A *seventh* element is the existence of effective surveillance. I do not agree that the Textiles Surveillance Body is toothless. It works by consensus, as GATT bodies also do, and its members are appointed by governments. But it has shown a capacity for speedy solutions, as well as very definite and biting recommendations. Its role in the phase-out period could be further enhanced if, as said before, after a certain moment of the phase-out period, restraints (under Article 3, of course) could be introduced or extended *only after* the case was heard by the TSB and the body *explicitly consented* to such introduction or extension.

* * *

What is the expected outcome of this preliminary suggestion?

Before the end of the phase-out period, all agreements concluded under Article 4 would have disappeared; as to the restraints justified because of market disruption, introduced after 1 January 1992, the importing country should decide at the end of the phase-out period whether those products still needed other protection than that offered by tariffs; if nontariff protection were needed, it would then be sought under the safeguard provisions of the General Agreement.

In any case, a considerable decrease in the number of products and countries under quota would have occurred, and there would have been considerable liberalization of trade.

It cannot be said that at the end of the phase-out period importing countries would be giving something away for nothing; importing countries would have been paid several years before, when exporting countries had agreed to several more years of protectionism under the phase-out formula.

Of course, vested interests would be affected, and some of them would put up quite a fight. That is why it is important for the solution for textiles to be inserted in the package of the Uruguay Round, so that other strong interests might oppose themselves to the textile lobbies of both importing and exporting countries.

The above suggestion does not involve tariffs as an element of the negotiations on the phasing out of the MFA. While recognizing their importance, if liberalization is to be extended and more fully achieved, I did not consider it desirable to mix the negotiation of tariff reductions or bindings with these ideas on the future of the Arrangement.

This does not mean that I do not subscribe to the view that at the end of the phase-out period, tariffs should be the only remaining barrier to trade in textiles and clothing; it only means that it seems to me appropriate to leave tariffs to their competent forum in the Uruguay Round mechanism.

Appendix 11A

How Barriers Expanded under the MFA

"The basic objectives shall be to achieve the expansion of trade, the reduction of barriers to such trade and the progressive liberalization of world trade in textile products"; thus goes paragraph 2 of Article 1 of the MFA. Unfortunately, these brave words drafted in 1973 were not followed very closely by importing participants.

The following tables contain information on restraints agreed under the Multi-fibre Arrangement (be it under Article 3 or, in the overwhelming majority of cases, under Article 4) since 1980, and refer only to exporting countries participating in the Arrangement on 31 July 1988.

The MFA Restraint Agreements

In the following tables, (x) indicates that restraints were agreed under an MFA agreement (either Article 3 or 4); restraints imposed by unilateral decision of the importing country do not appear in the tables. These refer only to exporting countries participating in the Arrangement on 31 July 1988; restraints eventually agreed by the importing country and an exporting country which participated in the MFA I, II or III, but not in the MFA IV, do not appear in the tables.

As it can be seen, the number of restraint agreements has increased since 1980, Austria being the only case of a definite drop in their number. If we look back at the initial phase of the MFA, the increase in the number of restraint agreements is even larger: for instance, in 1975 Canada had only six agreements; Norway and Sweden had seven and eight agreements in 1976, respectively; while in 1977 the United States had sixteen restraint agreements.

The European Community (EC) has decreased the number of its restraint agreements under the MFA IV, as those with Bangladesh, Colombia, Mexico and Uruguay do not contain any restraints; the previous agreements, however, were minor ones, totaling altogether five EC restraints and five regional restraints in 1986. Yugoslavia, previously restrained under the MFA, is now restrained under another instrument.

Finland and Sweden show practically stable numbers; Sweden, as a matter of fact, had at the end of 1987 only twelve restraint agreements, as that with Brazil expired in the course of the year.

Norway seems to have stabilized around fifteen agreements, but up-to-date information on all its MFA IV agreements is currently lacking.

Canada and the United States have steadily increased the number of their MFA agreements: the United States had placed under restraint, at

the end of 1987, all the MFA exporting countries, both developing and Eastern European, but one: the sole exception was Argentina. The United States is also the only country applying the MFA restraints to Japan.

By 31 December 1987, therefore, ninety-nine agreements establishing restraints under the MFA were in force. As to the number of restraints in these agreements, a sweeping statement is difficult to make.

Austria and Finland apply very few restraints, as they have done throughout the MFA. At this moment I have little information on Swedish agreements, but it would seem that the number of restraints has decreased. Norwegian agreements also seem to contain less restraints than before.

The EC, in accordance with its decision to reduce by around 25 percent the number of restraints negotiated under the MFA III, has diminished the number of restraints in its MFA IV agreements. While this is laudable, it must also be said that: (a) the restraints liberalized were generally superfluous, as they were not being filled and/or did not cover cases of real risk of market disruption; (b) by July 1988 there were still about 470 quotas in force in the EC's MFA agreements.

Canada has in general increased the number of products under restraint in its MFA IV agreements, and in some cases has also placed under restraint products of non-MFA fibers, i.e., those fibers not covered by the original Arrangement but included under the 1986 Protocol.

The United States has increased the number of restraints in practically all its agreements, besides including the new fibers in several restraints. From 1 August 1986 until 30 June 1988 the United States increased the number of its restraints by almost two hundred! This means an increase of about one-third over the number of restraints in force by the end of the MFA III.

But the number of restraints is not the only criterion to evaluate the restrictiveness of agreements. For instance, one should not forget, in fairness to Canada and the United States, that from the MFA I through the MFA III (1974-86) these countries extended, for most restrained products, terms much more advantageous than those extended by other large importing countries. Furthermore, one should examine the participation of the exporting country in the domestic market of the importing country on a product-by-product basis, the annual growth rates and the flexibility provisions negotiated, the occurrence of front-end loading in the initial quota, and, above all, the existence of market disruption or of real risk of market disruption. This would be an exercise largely exceeding the objective of this paper, and I do not intend to engage in it.

Table 11A-5 shows the changes in import patterns of the MFA importing countries between 1973 and 1986.

Let us start with a look at the cases of Sweden and of its neighbor, Norway. I regret to say that these two countries represent the cases of

most extreme application of the MFA. As a matter of fact, if the severe restrictions applied by them under the MFA (and by Norway under a GATT safeguard which exempted EFTA and the EC countries) aimed at preserving minimum viable production (MVP), their result was to preserve or increase the market share of other developed countries.

The incredibly severe restrictions applied by Sweden to developing members of the MFA resulted in allowing the share of its imports taken by the developed MFA members to *increase* by 13 percent in the case of textiles and 18 percent in the case of clothing in the period 1973–86.

The futility of this policy was finally recognized by the Swedish government, which in October 1988 addressed a proposal to parliament including, among a set of measures, the end of recourse to the MFA when the MFA IV expires. If only other governments showed the same political courage!

Norway, which since its return to the MFA has applied very strict restrictions only to developing and Eastern European countries, has a very high and stable share of its textile and clothing imports taken by the developed members of the MFA. One might wonder whether the severe restrictions applied under the MFA III and in the new agreements under the MFA IV are justified in view of the high penetration by unrestrained developed countries.

A defender of Norway's and Sweden's policies will say that the shares mentioned refer to all textiles (textile yarn, fabrics, made-up items and related products) and to all clothing items, while the MFA restraints are applied to specific products. True, but it is also true that until 1987 most of the clothing categories and several textile categories were under restraint in these two Nordic countries.

Austria, which applies restraints selectively, is predominantly a market for developed countries, whose shares in Austrian imports are very high, comparable to those in Finland, Norway and Sweden.

In Finland, which also applies restraints on a selective basis, developed members show a well-defined, increasing trend in the shares of both textiles and clothing.

In Japan and Switzerland, which do not apply the MFA restraints, the shares of imports from the developed MFA members are stable. (In 1987 the situation in Japan changed sharply in favor of developing members.)

As to Canada, the EC (excluding intra-EC trade) and the United States, there has been, from 1973 to 1986, a decrease in the share of clothing imports coming from other developed members; this is more noticeable for the United States and Canada. Their share in textile imports increased in the EC and, while decreasing in Canada and the United States, is still significant (48 percent for the United States and 72 percent for Canada); nonetheless, all three countries apply restrictions to textiles from many developing members of the MFA, be it yarn, fabrics, cotton towels, bed linen or table linen.

Table 11A-1 Restraint Agreements Concluded under the MFA by Austria, Finland, Norway, and Sweden with Participants in MFA IV

| | 1980 ^a | | | 1981 ^a | | | 1982 ^a | | | 1983 ^a | | | 1984 | | | | 1985 | | | | 1986 | | | | 1987 | | | | | |
|----------------|-------------------|---|----|-------------------|---|----|-------------------|---|----|-------------------|---|----|------|---|----|----|------|---|----|----|------|---|----|----|------|---|----|----|---|---|
| | A | F | S | A | F | S | A | F | S | A | F | S | A | F | N | S | A | F | N | S | A | F | N | S | A | F | N | S | | |
| Brazil | ◆ | | ◆ | ◆ | | ◆ | ◆ | | ◆ | ◆ | | ◆ | ◆ | | ◆ | ◆ | | ◆ | ◆ | | ◆ | ◆ | | ◆ | ◆ | | ◆ | ◆ | | ◆ |
| China | | | | | | | | | | | | ◆ | | | ◆ | | | ◆ | | | ◆ | | | ◆ | | | ◆ | | | ◆ |
| Czechoslovakia | | | | | | | | | | | | | | | ◆ | | | ◆ | | | ◆ | | | ◆ | | | ◆ | | | ◆ |
| Hong Kong | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ |
| Hungary | | | | | | | | | | | | | | | ◆ | | | ◆ | | | ◆ | | | ◆ | | | ◆ | | | ◆ |
| India | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ |
| Indonesia | | | | | | | | | | | | | | | ◆ | | | ◆ | | | ◆ | | | ◆ | | | ◆ | | | ◆ |
| Korea, Rep. of | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ |
| Macao | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ |
| Malaysia | | ◆ | ◆ | | ◆ | ◆ | | | ◆ | | | ◆ | | | ◆ | | | ◆ | | | ◆ | | | ◆ | | | ◆ | | | ◆ |
| Pakistan | | | ◆ | | | ◆ | | | ◆ | | | ◆ | | | ◆ | | | ◆ | | | ◆ | | | ◆ | | | ◆ | | | ◆ |
| Philippines | | | ◆ | | | ◆ | | | ◆ | | | ◆ | | | ◆ | | | ◆ | | | ◆ | | | ◆ | | | ◆ | | | ◆ |
| Poland | | | | | | | | | | | | | | | ◆ | | | ◆ | | | ◆ | | | ◆ | | | ◆ | | | ◆ |
| Romania | | | | | | | | | | | | ◆ | | | ◆ | | | ◆ | | | ◆ | | | ◆ | | | ◆ | | | ◆ |
| Singapore | | ◆ | ◆ | | ◆ | ◆ | | | ◆ | | ◆ | ◆ | | ◆ | ◆ | | ◆ | ◆ | | ◆ | ◆ | | ◆ | ◆ | | ◆ | ◆ | | ◆ | ◆ |
| Sri Lanka | | | ◆ | | ◆ | ◆ | | | ◆ | | ◆ | ◆ | | | ◆ | | ◆ | ◆ | | | ◆ | | ◆ | ◆ | | | ◆ | | ◆ | ◆ |
| Thailand | | ◆ | ◆ | | ◆ | ◆ | | | ◆ | | ◆ | ◆ | | | ◆ | | ◆ | ◆ | | | ◆ | | ◆ | ◆ | | | ◆ | | ◆ | ◆ |
| Yugoslavia | | | ◆ | | | ◆ | | | ◆ | | | ◆ | | | ◆ | | | ◆ | | | ◆ | | | ◆ | | | ◆ | | | ◆ |
| Total | 5 | 7 | 12 | 5 | 8 | 12 | 6 | 7 | 12 | 7 | 9 | 12 | 7 | 9 | 10 | 13 | 7 | 9 | 14 | 13 | 8 | 9 | 15 | 13 | 5 | 9 | 16 | 13 | | |

a. Norway did not participate in the MFA from 1/1/78 to 30/6/84; it had recourse to Article XIX in regard of "various textile items". All non-MFA quantitative restrictions were brought to an end by 1/7/85.

b. Expired on 8 August 1987; restraints not renewed.

Table 11A-2 Restraint Agreements Concluded under the MFA by Canada with Participants in MFA IV

| | 1980 | 1981 | 1982 | 1983 | 1984 | 1985 | 1986 | 1987 |
|----------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| Bangladesh | | | | | | ◆ | ◆ | ◆ |
| Brazil | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ |
| China | | | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ |
| Czechoslovakia | | | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ |
| Hong Kong | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ |
| Hungary | | | | ◆ | ◆ | ◆ | ◆ | ◆ |
| India | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ |
| Indonesia | | | | ◆ | ◆ | ◆ | ◆ | ◆ |
| Korea, Rep. of | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ |
| Macao | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ |
| Malaysia | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ |
| Pakistan | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ |
| Philippines | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ |
| Poland | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ |
| Romania | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ |
| Singapore | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ |
| Sri Lanka | ◆ | ◆ | | ◆ | ◆ | ◆ | ◆ | ◆ |
| Thailand | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ |
| Turkey | | | | | | | | ◆ |
| Uruguay | | | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ |
| Total | 13 | 13 | 15 | 18 | 18 | 19 | 19 | 20 |

Table 11A-4 (continued)

| | 1980 | 1981 | 1982 | 1983 | 1984 | 1985 | 1986 | 1987 |
|----------------|------|------|------|------|------|------|------|------|
| Hungary | | | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ |
| India | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ |
| Indonesia | | | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ |
| Jamaica | | | | | | | ◆ | ◆ |
| Japan | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ |
| Korea, Rep. of | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ |
| Macao | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ |
| Malaysia | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ |
| Mexico | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ |
| Pakistan | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ |
| Peru | | | | | ◆ | ◆ | ◆ | ◆ |
| Philippines | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ |
| Poland | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ |
| Romania | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ |
| Singapore | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ |
| Sri Lanka | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ |
| Thailand | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ |
| Turkey | | | | | | ◆ | ◆ | ◆ |
| Uruguay | | | | ◆ | ◆ | ◆ | ◆ | ◆ |
| Yugoslavia | | | | | ◆ | ◆ | ◆ | ◆ |
| Total | 17 | 17 | 19 | 20 | 24 | 27 | 29 | 30 |

Table 11A-5 Share of Developed Members of the MFA in Total Imports of Textiles and Clothing of Other Developed Members, 1973, 1977, 1982 and 1986
(Percentage of US\$ values)

| | Textiles | | | | Clothing | | | |
|-----------------|----------|------|------|------|----------|------|------|------|
| | 1973 | 1977 | 1982 | 1986 | 1973 | 1977 | 1982 | 1986 |
| EC ^a | 38.9 | 37.1 | 44.2 | 45.2 | 14.4 | 13.0 | 12.7 | 10.5 |
| United States | 66.7 | 56.8 | 50.1 | 47.8 | 26.7 | 16.2 | 8.9 | 13.1 |
| Japan | 41.5 | 47.2 | 36.5 | 36.3 | 17.1 | 21.8 | 21.6 | 16.4 |
| Canada | 83.2 | 82.9 | 80.3 | 72.1 | 43.1 | 34.0 | 23.3 | 26.0 |
| Austria | 90.2 | 87.6 | 88.9 | 88.4 | 82.6 | 79.8 | 83.4 | 85.6 |
| Finland | 80.6 | 83.8 | 87.0 | 88.5 | 62.6 | 59.4 | 68.0 | 73.5 |
| Norway | n.a | n.a | 88.8 | 89.8 | n.a | n.a | 86.5 | 86.2 |
| Sweden | 75.1 | 73.9 | 83.2 | 84.7 | 60.0 | 58.5 | 67.3 | 70.8 |
| Switzerland | 83.6 | 85.6 | 83.9 | 85.7 | 84.3 | 77.9 | 79.6 | 80.5 |

a. Excluding intra-EC trade; if intra-EC trade were included, the shares of developed members would be as high as those in other European countries.

Source: GATT documents COM.TEX/W/134 and 197.

Appendix 11B. A Look at the Case of Latin American and Caribbean Exporting Countries

In general, Latin American and Caribbean exporting countries are not as restricted in their textile exports as the Asian and Eastern European countries. Mexico, Costa Rica, the Dominican Republic, Haiti and Jamaica are large exporters to the United States, but this is due to a strong activity of outward processing originated in the United States. Brazil is a large exporter of semi-manufactured products—i.e., cotton yarn and unbleached cotton fabrics—but only a minor exporter of clothing and made-up items (which are nevertheless under restraint in the largest importing countries). Brazil is a good example of the primacy of the domestic market in the Latin American case: in 1986, when demand boomed in Brazil as a result of the Cruzado plan, its shares in imports of both textiles and clothing by every developed MFA participant fell. With the exception of a few genuinely export-minded companies, the Brazilian industry eyes exports as no more than a safety valve.

By far the largest customer of the region's exports is the United States. This explains why practically only the United States maintains restrictions on the Latin American and Caribbean countries; in July 1988 it had restraints on Brazil, Colombia, Costa Rica, Dominican Republic, Guatemala, Jamaica, Mexico, Peru and Uruguay. The United States also applied restrictions to Haiti and Panama, which at present are not MFA participants. A total, thus, of eleven developing Latin American and Caribbean countries were under restraint in the United States.

The EC applied restraints to Argentina, Brazil and Peru; restraints applied under the MFA III to Colombia, Mexico and Uruguay were discontinued at the end of 1986.

Canada had, in July 1988, restraints in force on Brazil and Uruguay; those on Brazil were of a unilateral nature.

Austria and Sweden previously had imposed restraints on Brazil, but in 1987 the restraints expired and were not renewed in either case.

The developing American countries are exporting very little, as table 11B-1 shows.

These numbers are small, if compared to imports by the developed MFA members, from all sources, in the same year: US\$21,012.25 million for textiles and US\$37,852.75 million for clothing. Participation rates of the developing countries of the Americas in these totals were, therefore, 5 percent and 3.8 percent, respectively. These shares are even less impressive if one considers that textile raw materials are produced in large amounts by several Latin American countries: cotton (Brazil, Colombia, Guatemala, Mexico, Peru), wool (Argentina, Brazil, Uruguay) and man-made fibers (Argentina, Brazil, Mexico, Venezuela).

Table IIB-1 Imports by All Developed Participants in the MFA of Textiles and Clothing from All Latin American and Caribbean Countries, 1986
(US\$ millions)

| Country | Textiles | Clothing |
|---------------------|----------|----------|
| Argentina | 55.2 | 5.1 |
| Brazil | 460.9 | 151.6 |
| Colombia | 63.4 | 53.3 |
| Jamaica | 0.2 | 105.0 |
| Mexico | 218.0 | 306.2 |
| Peru | 112.9 | 24.5 |
| Uruguay | 66.8 | 51.2 |
| Others ^a | 68.8 | 727.2 |
| Total | 1,046.2 | 1424.1 |

a. Includes nonparticipants in the MFA.

Source: GATT - COM.TEX/W/197, Table 2.

The low level of exports by the Latin American countries stems from several reasons. The first seems to be a widespread lack of initiative, of "push" to export. But two *caveats* are in order: the first is that there are instances of initiative, of efforts to export, which were immediately "rewarded" by claims of market disruption and a restraint—agreed or unilateral—in the importing country. The second is that in the developing countries of the Americas, especially in the smaller ones, the scarcity of capital renders it difficult to find investors willing to risk it in export-oriented ventures in a very competitive field and in the face of a well-established system of protectionist rules.

For the moment, a great capacity to expand exports is evident in Brazil, an important producer of cotton, wool and man-made fibers, and where fourteen companies appeared in the list of the world's 250 top textile companies by turnover.⁶

Since the setting up of the Caribbean Basin Initiative (CBI) by the United States, companies from the United States and other countries have been active in their use of Caribbean labor for outward processing of fabrics formed and cut in the United States for reexport to the United States, where they enjoy preferential tariff treatment. This has led the U.S. administration to conclude with some of the CBI countries agreements setting up Guaranteed Access Levels (GALs), which are quotas to be used only for products satisfying the conditions described above; the Dominican Republic, Jamaica and Trinidad and Tobago (the latter a nonparticipant in the MFA) have GALs in the United States. Mexico also obtained a similar treatment, under a "special regime"; the reason for this nomenclature is that Mexico is not a beneficiary of the CBI.

In several of these cases, the United States, in establishing GALs, has terminated previously existing specific limits. This means that in those

cases, the exporting countries in question are free to export without restraints products either totally manufactured there or manufactured there from fabrics imported from third countries. One might wonder to what levels such non-GAL exports would be able to develop before a quota were imposed, but the fact is that the present situation is more favorable to the Caribbean nations than if they had continued under specific limits.

On the other hand, it must be recognized that, with the setting up of a network of vested interests, a situation was created which will make it difficult: (a) for the Caribbean countries to agree to the end of the MFA, as keeping competitive exporters under restraint in the United States works in favor of the Caribbean countries; (b) for the United States to decrease its tariffs, as U.S. producers established in the Caribbean would then enjoy a smaller tariff preference.

Notes

The author, a Brazilian diplomat, was at the head of Brazil's delegation during the negotiation of the MFA. Since 1982 he has been seconded for service with the GATT, as chairman of the Textiles Surveillance Body (TSB) of the MFA. He wishes to thank Mrs. Tripti Jenkins, Messrs. Sanjoy Bagchi, Carl Hamilton, Nicolas Marian and Gary P. Sampson for their helpful suggestions and advice, and Ms. Paula Holmes for valuable information provided. The views expressed do not engage in any way the responsibility of the GATT, the TSB or the Brazilian government.

1. On 15 April 1989 the MFA participants were: exporting countries—Argentina, Bangladesh, Brazil, China, Colombia, Costa Rica, Czechoslovakia, Dominican Republic, Egypt, El Salvador, Guatemala, Hong Kong, Hungary, India, Indonesia, Jamaica, Korea, Macao, Malaysia, Mexico, Pakistan, Peru, Philippines, Poland, Romania, Singapore, Sri Lanka, Thailand, Turkey, Uruguay and Yugoslavia; importing countries—Austria, Canada, EC, Finland, Japan, Norway, Sweden, Switzerland and the United States.

2. Specific limits covering one or more categories, sublimits, designated consultation levels, aggregate limits or group limits.

3. EC limits (each subdivided into twelve country quotas), EC sublimits, regional limits.

4. But since the MFA is based on a pseudoeconomic solution, it probably would be useful to invest the suggestion below with an economic facade, to "justify" why the MFA may be extinguished.

5. Annual growth rates in MFA agreements always relate to the volume unit in which the restraint is described, i.e., units of weight, yards or number of pieces.

6. According to the German publication *Textile Wirtschaft*, quoted by Comitextil, the following Brazilian textile companies were in 1986 among the world's top 250, by turnover (converted into DM); their place among the 250 are between brackets: Hering (32); Steinbruch/Rabinowitch (37); Alpargatas (40); Santista

(54); Tatuapé (97); Teka (152); Ciane (160); Artex (186); Textil Elisabeth (187); Vicunha (224); Linhas Corrente (227); Kenebo (234); Toyobo do Brasil (236); Dohler (246).

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12

Returning Textiles Trade to the Normal Workings of GATT: A Practical Proposal for Reform

Gary Sampson and Wendy Takacs

World trade in textile products is worth well over one hundred billion dollars. Much of this trade is directly administered by an extraordinarily complex and Byzantine set of bilaterally negotiated export restraint arrangements (involving over thirty developing countries and eighteen of the major developed market economy countries), while the remainder is very much influenced by these arrangements. The multilateral umbrella arrangement which sets the rules that are to be adhered to in the bilateral negotiations (products restrained, growth rates of restrained imports, base quotas etc.) is known as the Multi-Fibre Arrangement (MFA). It is becoming increasingly evident that the MFA has not achieved its principal stated objectives (eg., the progressive liberalization of world textile trade). World trade in textiles has expanded, but this has occurred in spite of the MFA. There has been no reduction or progressive liberalization, but instead restrictions have proliferated to include more countries and products. It is time to do away with the MFA.

Returning textile trade to the normal workings of the General Agreement on Tariffs and Trade (GATT) was one of the objectives of the Punta del Este Declaration that launched the Uruguay Round of Multilateral Trade Negotiations (MTNS).¹ The current MFA will expire in mid-1991, shortly after the deadline for the Uruguay Round. The GATT Trade Negotiations Committee in its mid-term review not only reaffirmed the objective of phasing out the MFA and reintegrating textile trade into

GATT, but further specified that agreement on modalities to do so should be reached within the time span of the current negotiations and that the liberalization process should commence following the conclusion of the negotiations in 1990.² Participants in the negotiations have been asked to put forward proposals by the end of June 1989.

Now that the substantive negotiations on the specific manner of integration of the textile and clothing sector into GATT and the phase-out of the MFA restrictions are going to commence, this is the time to consider practical proposals for phasing out the MFA. This paper contains one such proposal.

Over the years there have been various proposals for reform.³ Indeed, every time the Arrangement is renegotiated (and this is the fourth MFA), proposals emerge in the normal process of multilateral bargaining in the Textiles Committee of GATT.⁴ But despite years of negotiations, not one word of the text of the original MFA has been changed.⁵ In fact, temporary intergovernmental arrangements regulating trade in textiles have been with us for at least three decades in one form or another. There is now, however, a political commitment on the part of all participating countries to eliminate the MFA.

While such a commitment is clearly important to remove the MFA, it is not enough; it has to be supported by pragmatic and practical proposals. The MFA (like any managed trading arrangement) has created numerous vested interest groups. Producers in the importing countries benefit from the protection it affords, while consumers are hurt. Each bilateral quota guarantees at least the possibility of market access for the exporting country, may well transfer quota rents to it, and gives government officials the ability to distribute quota permits as they wish. Higher-cost exporters (both restrained and unrestrained) have been helped to retain a presence in the market because of the restrictions on more efficient suppliers. Entire bureaucracies exist to negotiate, oversee, and administer the arrangements. Any reform that aspires to be realistic must be aware of these interests. While devising a plan that accommodates all interest groups is not possible, it is possible to minimize the impact on those adversely affected and capitalize on those that stand to gain, while attempting to do what is in the long-term economic interests of both importing and exporting countries.

The case for liberalization and reform is compelling. In the *importing* countries, high levels of protection impose real costs on the economy.⁶ The quantitative restraint arrangements remove the domestic production processes from the discipline of international price competition and provide open-ended protection to producers. The costs to the economy are not transparent and not easily quantifiable. The system of bilateral quotas creates an arbitrary trade pattern with limited responsiveness to changes in cost factors. The system of quotas administered on the export

side also makes it possible for the exporting country to appropriate the scarcity rent associated with the trading transaction, which is increasingly resented by some in importing countries such as the United States.

As far as the *exporting* countries are concerned, for those exporters that are competitive but do not have an export entitlement, the system does not permit them to enter into *any* sort of trading arrangement. Moreover, the manner in which the restraint arrangements are negotiated is extremely resource consuming—particularly for small countries—and wide open to bureaucratic discretion. The restraint arrangements are discriminatory as between supplying countries, contravene the letter and spirit of GATT and undermine the credibility of the GATT-based open and liberal trading system.

A Proposal for Reform

This proposal has as its objective a gradual return to normal GATT rules for world textile trade. The end result will be a replacement of the current bilateral, discriminatory, quantitative arrangements by bound, most favored nation (MFN) tariffs.

Tariffs are the most appropriate method of regulating international trade. The level of protection is transparent. There is a minimum of bureaucratic discretion, and tariff revenue accrues to the importing countries. History has made clear that tariffs lend themselves to negotiated reduction via an exchange of concessions, and across-the-board cuts can be negotiated through tariff cutting formulas. Furthermore, tariffs are nondiscriminatory (if applied on an MFN basis), and if they are uniform across the industry (or manufacturing sector more generally), the resource distortion is minimized. For exporting countries, tariffs can be bound against future increases so there is a degree of predictability as to the level of protection. This is not the case with bilaterally negotiated quantitative restrictions.

Thus, it is not at all surprising that replacing quotas with tariffs has been proposed.⁸ However, it is unlikely that governments will move directly from the highly selective restraint arrangements of the MFA to nondiscriminatory bound MFN tariffs. It is not clear what tariff rate would achieve the same degree of overall import penetration. Moreover, the MFA grew out of the desire of governments to control imports from some countries and not others. Further, tariffs are “blunt” instruments, slow to act and uncertain in their outcome. After years of export restraint, it is not clear which exporters and import-competing producers are internationally competitive and in which products.

Just as a move directly to tariffs presents problems, so does the move to nondiscriminatory global quotas. While there is certainty about the

volume of imports, global quotas are not selective as between supplying countries; there would probably be considerable opposition on the part of some importing and some exporting countries to such a move. Further, the liberalization of global quotas would presumably come through a gradual expansion in their quantitative limits. This could be done on an arbitrary basis (for example, a negotiated percentage per annum) or linked to some other economic variable (for example, growth of aggregate demand). The marginal demand for imports, however, is very sensitive to economic conditions and quite unpredictable.

To avoid the potential problems of an immediate direct conversion to either tariffs or global quotas, we propose using tariff-quotas as an intermediate step. Tariff-quotas are trade restrictions that allow imports to enter at a particular tariff rate up to a given quota limit. Imports above that quota limit are permissible upon payment of an additional duty. A tariff-quota is thus like a two-tier tariff system, in which there is no absolute limit to the value or volume of imports, but imports above the specified quota limit must pay an additional penalty rate of duty. In our proposal, the "in quota" tariff would be the current MFN rate, and the "above quota" tariff would be a higher "penalty" rate.

A tariff-quota would lend itself to a progressive liberalization (through a reduction in the higher penalty rate) and a phased reduction in discrimination. Gradual liberalization and gradual removal of discrimination can achieve the goal of eventually returning textile trade to the normal workings of GATT without sudden surges in imports and shifts in market shares that may make a direct move to nondiscriminatory bound tariffs (or even global quotas) unacceptable. A system of tariff-quotas can also be designed to allow the play of market forces to have some impact on the decisionmaking process relatively quickly, where the most efficient producers gain increased market shares and consumers take more rational decisions.

Current bilateral restraint arrangements are negotiated on the basis of "categories" of textile products. As a first step, the bilateral restraint arrangements, which are currently administered on the export side, would be converted to category-specific tariff-quotas administered by the authorities in the importing countries. They would apply only to countries whose exports are currently restrained under the MFA.⁹ The quota limit for the normal MFN duty rate would be set at a level equal to the sum of all the restraining exporting countries' current restraint levels. Over-quota imports from the currently restrained countries would be permitted, but they would be subject to the higher penalty tariff rate for above-quota imports in the tariff-quota arrangement.

The tariff-quota arrangement can be administered in a way that would avoid disturbing the pattern of trade flows and the distribution of quota rents in the initial period, but would allow gradual liberalization of

textile trade and gradual reduction in discrimination among sources of supply. Initially, the penalty tariff could be set high enough to be prohibitive, so that no above-quota imports would occur. Countries not currently restraining their exports under the arrangements would not be subject to the tariff-quota. They would continue to pay just the MFN tariff rate, and so would be expected to maintain their share of the market. This would ensure that at the beginning of the conversion process there would be no large or abrupt change in the total volume of imports.

The tariff-quota would be administered by issuing licenses for within-quota imports. These licenses would be global, that is, could be used to import from any source. To ensure that each exporting country would initially maintain control over the administration of the restraint arrangements, these "trading licenses" would be transferred, free of charge, to the governments of the exporting countries in proportion to their previous share of total imports in that category under the bilateral arrangements.¹⁰ The exporting country governments, in turn, could continue to distribute these to their exporters in any manner they wished.¹¹

In order to move away from the discriminatory treatment of supplying countries, the number of trading licenses transferred to each exporting country would be gradually reduced over time at a previously negotiated rate. The importing countries would retain the licenses not transferred to the exporting countries and would adopt a method of distributing them so that they could be used to import from any source. The importing countries could allocate the licenses to importers, for example, according to historical market shares, or some other rule. If the importing country governments charge fees for the licenses or auction them, then some of the quota rents would be transferred to them. The method of distributing licenses (e.g., auctioning) is not an integral part of the proposal.

These licenses could be used to import from any source, but they would probably be used to import from one of the more competitive restrained MFA countries, given that imports from nonrestrained sources can enter at the MFN rate without a license. Once some of these essentially "global" licenses are retained and distributed by the importing country government, the exports of the more competitive restrained countries would probably increase, while the exports of the less competitive restrained suppliers would probably decrease. The exports of non-restrained suppliers (ie., the developed market economy countries), would not be affected through this process as long as the penalty tariff rate remains high enough to be prohibitive, as the total volume of imports would be the same as under the bilateral restraint arrangements.

This part of the scheme would not reduce the level of protection, nor would it increase the market access of the restrained countries as a group. Nevertheless, the process would be attractive to the most competitive suppliers who stand to gain from the inherent "globalization" of those licenses distributed by the importing countries. It would not be the case for the less competitive suppliers, who would lose their potential access. This redistribution among the restrained countries begins to remove some of the inefficiencies of the MFA by allocating extra exports and, therefore, output to the most efficient suppliers. While it may be legitimately argued that this is how it always should have been, the process of redistribution would be made more attractive by offering an enlarged market to all the restrained supplying countries.

This would follow via the enlargement of the market of the restrained countries under the tariff-quota through a phased reduction of the over-quota penalty tariff. This could be done over a long period of time, long enough to give producers in the importing countries time to adjust to the increased import competition. As the penalty tariff falls, it would eventually reach a level where it would be no longer prohibitive to import without a quota license, and the volume of imports would expand beyond the quota limits. Therefore, the market access of the restrained suppliers would be improved. To meet the objective of moving back to the normal workings of GATT, it would be necessary to eventually reduce the penalty tariff down to the existing MFN tariff rate.

As the penalty tariff moves down toward the MFN rates, pressure is brought to bear (albeit gradually) on nonrestrained suppliers. There would presumably be a steady diversion away from them as they came to compete on an equal footing with the restrained suppliers. Similarly, pressure would be gradually exerted on domestic producers as the penalty rate fell. At the end of the process they would be protected by only the MFN tariff. While this process of trade liberalization may not be attractive to domestic producers and nonrestrained exporters, the period over which the penalty tariff is reduced can be long enough to allow the industries time to adjust to increased competition in a smooth and predictable manner. This proposal should appeal to them as a relatively low-cost way of implementing a policy that now has been formally accepted by their governments at ministerial level.

Analysis of Changes in Trade Patterns and Transfers under the Proposal

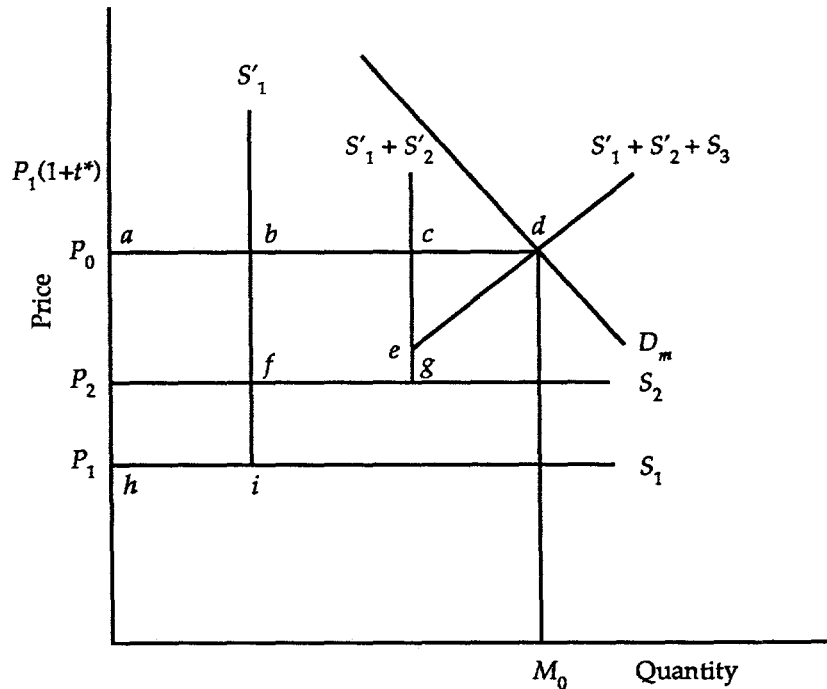
Initial Impact of Conversion to Tariff-Quotas

The impact of the implementation of this proposal on trade flows and the economic interests of the importing and exporting countries will depend upon the size of the penalty tariff and its rate of decrease, the division of the quota licenses between the importing and exporting countries, and, for the exporting countries, their competitive position with respect to other restrained suppliers. To illustrate the role of each of these factors, we focus on trade in one restrained category of textile product (say, men's cotton shirts) in one importing country.

The initial situation prior to implementation of the proposal is illustrated in Figure 12-1. D_m is the importing country's demand curve for imports in the given category of textile product. Suppose that there are three countries (or groups of countries) supplying the textile product. Countries 1 and 2 are restrained exporters under the MFA, while country 3 is an unconstrained nonsignatory country (or group of countries). Assume for simplicity that the good is available in country 1 at a price P_1 , and that country 1 has an export limit of $hi (= ab)$. The good is also available in country 2 at a price P_2 , and country 2 is constrained to an export limit $fg (= bc)$. The effective supply curve of the product to the importing country from both countries taken together would be $P_1ifg(S_1' + S_2')$. Adding the supply curve for the third set of countries, the unconstrained nonsignatories (segment ed and its continuation), would yield a total effective export supply curve of this particular textile product to the importing country under the restraint arrangement of $P_1ifge(S_1' + S_2' + S_3)$ ¹². The equilibrium import price and import quantity would be P_0 and M_0 , respectively, given the initial supply conditions and restraint arrangement. Of the M_0 imports, ab come from country 1, bc from country 2, and cd from country 3. Quota rents on country 1's exports of this product to this particular importing country equal area $abih$, while quota rents on country 2's exports would equal area $bcgf$. Producers in the nonrestrained group gain producers' surplus equal to area cde .

Suppose now that the proposal suggested above is implemented. All bilateral quotas on this product with all restraining countries are replaced by a tariff-quota, while imports from countries not previously subject to quota continue unrestrained. The quota part of the tariff-quota would be set at the total level of exports allowed in this one product category across all restrained countries, ac . Above this quota, imports from restrained countries would be allowed, but only at a penalty rate of duty (t^*) set high enough initially to be prohibitive. That is,

Figure 12-1 Equilibrium with Quotas



$P_1(1+t^*)$ exceeds P^0 . The penalty duty would apply only to over-quota imports from restrained countries. Imports from currently non-restrained countries would be subject only to the current MFN tariff rates.

To administer this tariff-quota, the government of each importing country would issue "trading licenses" equal to the sum of all exports within the product category under the MFA bilateral arrangements. A preagreed proportion a of these licenses would be transferred directly to the exporting country governments according to each exporting country's share at the time of implementation. The government of each exporting country could allocate these trading licenses among its producers or exporters in any manner it sees fit. The proportion of the licenses not transferred to the exporting country government $(1-a)Q$ are kept by the importing country. Nontransferred licenses could be allocated among importers administratively, or they could be auctioned.¹³

The impact of this change on trade flows and the countries involved will depend upon: (1) the size of the coefficient a ; (2) whether there are

any imports at the penalty tariff rate; and (3) the relative competitiveness of the countries initially supplying the product.

To minimize the initial impact, a could be set close to unity. Assume for the moment that at the outset a is 1, so that all of the trading licenses are transferred to the exporting country governments. The total number of licenses issued would be ac , of which ab would be sent to country 1 and bc would be sent to country 2. Assume also that the penalty tariff rate is high enough to be prohibitive so that no additional imports come into the country at the penalty rate. At this stage, implementation of the proposal would not lead to any changes in trade flows or any redistribution of quota rents. Total imports and imports from each exporting country would be the same as under the bilateral restraint arrangements, all the prices remain the same as in Figure 12-1, and all of the quota rents remain with the exporting countries.

Impact of Importing Country Retaining Licenses

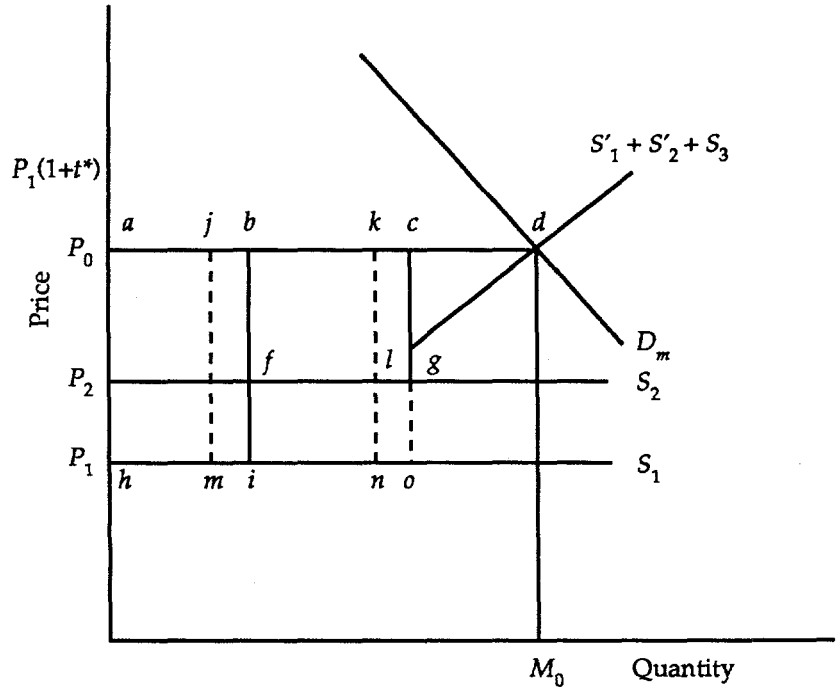
As time progresses, the importing country government would reduce the penalty tariff rate according to a preagreed schedule and would transfer a smaller proportion of the licenses to the exporting country governments, again according to a preagreed schedule. As soon as some of the licenses remain with the importing country (that is, a is less than 1), some of the quota rents would be transferred there. If the government simply gave the licenses away, the rents would go to the recipients of the licenses. If licenses were auctioned, the rents would be transferred to the importing country government in the form of auction revenue. The licenses retained by the importing country would be global in that they can be used to import from any source.

Figure 12-2 illustrates the transfer of rents and shifts in trade flows that would be expected to occur as soon as some proportion of the licenses remains with the importing country. Assume that the penalty tariff rate is still high enough to be prohibitive on this product and all potential substitutes.¹⁴

If no imports come in at the penalty rates and the overall quota levels remain unchanged, the equilibrium price (P_0) and total import level (M_0) would remain the same as before the implementation of the proposal. As the proportion of licenses transferred to the exporting countries declines, their quota rents will fall and less competitive restrained exporters will lose sales to more competitive restrained sources.

Suppose that, as shown in Figure 12-2, jb of the ab licenses that previously were transferred to country 1 and kc of the bc licenses that previously were transferred to country 2 are kept by the importing country. These global licenses would be used to import from the source that would yield the greatest quota rent, which would be the most

Figure 12-2 Tariff Quota with License Transfer



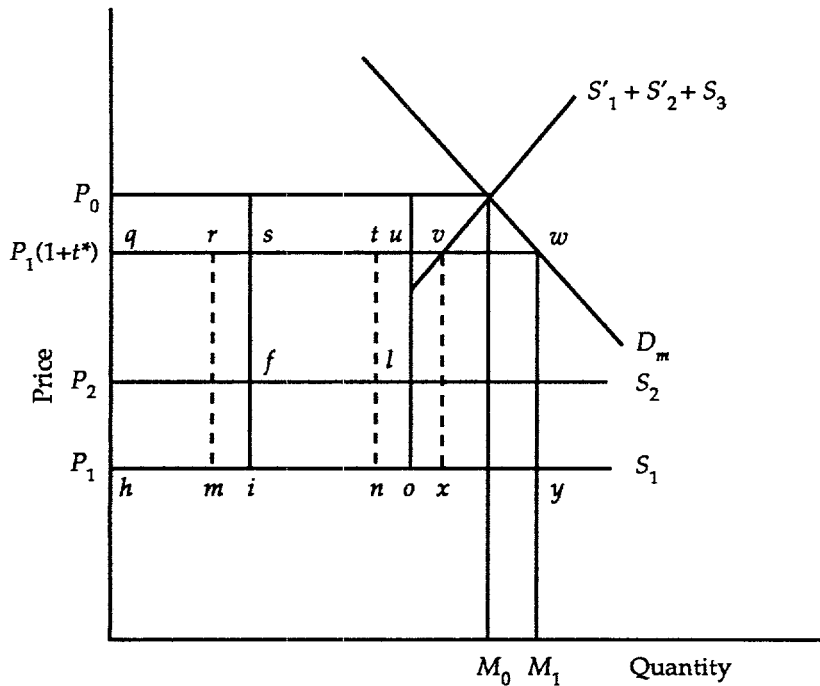
competitive country, country 1. If the licenses are auctioned, bidders would be willing to pay up to the quota rent they would expect, thus they would bid up to $(P_0 - P_1)$ for each unit, and all the auctioned licenses would be used to import from country 1. If the licenses were auctioned, the importing country government would capture $jbim$ of what previously had been country 1's quota rents, and $kcgl$ that previously had been country 2's quota rents, plus an efficiency gain of $lgon$ that would represent the higher cost of production in the less efficient country 2 for the imports now sourced instead from the more efficient country 1. If the licenses were given to importers or other firms, the recipients of the licenses would gain these revenues. Country 1's quota rents shrink to $ajmh$, but it gains export volume of kc . Country 2 loses quota rents of $kcgl$ and also loses the export volume kc .

Impact of Declining Penalty Rate

As the penalty rate of duty for over-quota imports falls, it will eventually reach a point at which there will be an incentive to import over quota. In the context of the assumptions used here, this would occur when the penalty-tariff-inclusive price of imports from the most competitive country, $P_1(1 + t^*)$, falls below the previous equilibrium price of P_0 . Figure 12-3 illustrates the changes in prices, trade volumes, quota rents, and auction revenues (or importer's quota rents) that would occur once the penalty tariff rate, rather than the quota alone, becomes binding. Quota licenses are still issued to import under quota, a proportion of these licenses is still transferred directly to the exporting countries, and the remainder is still distributed or auctioned by the importing country.

Given that imports from the previously restrained countries can enter freely at the penalty tariff rate, the price of the product under consideration would fall to $P_1(1 + t^*)$, and total import volume would expand to M_1 . In the new equilibrium, country 1, the lowest cost supplier, would

Figure 12-3 Tariff Quota with Declining Penalty Rate



supply qr units imported under licenses issued directly to it, $rs + tu$ units under global licenses, and vw units at the penalty tariff rate. Country 2 would supply st units under licenses issued directly to it, and country 3 would supply uv units. Country 1 would obtain quota rents of $qrmh$, which are lower than they would be if the penalty tariff rate were still high enough to be prohibitive, because the lower import price implies a smaller divergence between selling price and production cost. Country 2's quota rents of $stlf$ are smaller for the same reason. Nonsignatory countries supply less as well, because of the falling price. The lower price also implies that the importing country's quota rents or auction revenues will fall to area $rsim$ plus $tuon$, because the difference between the import price and supply price from the lowest cost supplying country decreases. From the point of view of the importing country, however, lost quota rents or auction revenue would be offset by revenue from imports at the penalty tariff rate, in this case $vwyx$ in Figure 12-3. Consumers would of course gain from the lower prices, and the reduced level of protection would encourage rationalization of the import-competing industry domestically.

Thus as the penalty tariff rate falls, the most competitive countries stand to increase their export volumes, but the gains from quota rents shrink. The less competitive restrained countries lose quota rents but would not gain export volume, while nonrestrained third countries find export prices falling and lose export volume to the lower-cost restrained countries. The entire restraint system becomes more rationalized as production shifts toward the least-cost suppliers and the protective effect of the quotas is reduced.

As the penalty tariff rate falls and the proportion of licenses transferred to the exporting country gradually falls, trade becomes increasingly liberalized and the discriminatory nature of the bilateral quotas is gradually removed. When the penalty tariff rate falls to the MFN rate, the quota would become redundant because imports from all sources could enter freely at the MFN rate, and the entire administrative apparatus for issuing licenses can be scrapped. Trade in textile and apparel products will have been returned to the normal MFN treatment under GATT.

Quota Expansion

In the proposal as we have discussed it so far, the aggregate quota ceiling for all restrained exporters taken together remains the same during the conversion to tariff-quotas and the subsequent liberalization through reduction of the penalty tariff rate. An alternative method of liberalizing quotas would be to expand the quota ceilings themselves.¹⁵

It would be possible to gradually expand the quota ceilings until they become nonbinding, and then abolish the quotas. This would also

eventually return the system to the normal workings of GATT. One advantage of this method is that it begins to expand trade volumes immediately, whereas with the tariff-quota proposal, as presented, trade only begins to expand as the penalty tariff rate falls enough to become nonprohibitive. Nevertheless, if all of the individual country quotas were expanded at the same rate, the pattern of discrimination would be preserved. Newly emerging suppliers often have small quotas, even though they are potentially very competitive.

The tariff-quota and quota expansion methods of liberalizing textile trade are not mutually exclusive. There is no reason why a quota expansion factor could not be included in a negotiated tariff-quota arrangement.¹⁶ It would simply imply that a quota expansion factor would have to be agreed upon, as well as an initial penalty tariff rate, rate of decrease of the penalty tariff, and rate of decrease in the proportion of licenses transferred to the exporting countries.

Conclusions

The proposal contained in this paper would place world textile trade on much firmer economic foundations, with a marked improvement in the allocation of resources in both the exporting and importing countries. Market price would again be an important variable in determining consumer choice and resource allocation, and there would be considerable economywide benefits through the gains from trade.

The practical realities are such, however, that for any proposal for the removal of the MFA to be acceptable, there must be perceived benefits on the part of the major "political actors"; it can safely be assumed that these groups view the costs and benefits of protection in a narrower perspective than do liberal economists. Fortunately, it can be argued that the above proposal meets the very practical requirements of the chief political actors.

As far as the governments of the exporting countries are concerned, one of the principal benefits is a firm commitment to a phased liberalization in the form of a clearly defined and preagreed rate of reduction in the penalty tariff. The exporting countries will lose quota rents gradually, and the exporting country governments will no longer be able to use export license allocations to influence producer decisions. All such changes, however, will be gradual, which will allow the governments to adjust to them. How individual exporters and producers would fare in the exporting countries would depend on a number of factors, the most important being their international competitiveness. In fact it could be argued that this is one of the main attractions of the scheme. Although each exporting country's guaranteed quota allocation would be reduced,

the declining penalty tariff would permit further market expansion for its competitive exporters.

The governments of the importing countries could sell the initiative to the public at large by appealing to consumers' expanded choice over less expensive products. There could also be increased government revenues from quota ticket auctions (if quotas are auctioned), from the penalty tariffs, and eventually from greater imports under the MFN tariff.

Import-competing producers will have to face greater competition as a result of liberalization, but they must take into account that their governments are, in principle, committed to removing the MFA. The only outstanding issue is how it is to be done. This plan should appear attractive to import-competing producers. The principal attraction would be the gradual, phased nature of the removal of the discriminatory protection and the clear, transparent, and predictable manner in which it would be implemented. The transition would not be abrupt, could be relatively clearly anticipated, and gives firms an established planning horizon.

The phase-out of the MFA is now clearly on the horizon. Textile trade, at the end of the process outlined in this paper, would meet the stated objectives of governments: it would be returned to the normal workings of GATT, with trade regulated only by the bound MFN tariffs.

Notes

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1. At Punta del Este in Uruguay in September 1986, governments decided to "formulate modalities that would permit the eventual integration of this sector into GATT on the basis of strengthened GATT rules and disciplines, thereby also contributing to the objective of further liberalization of trade" (*Ministerial Declaration of the Uruguay Round*, GATT/1396, 25 September, 1986).

2. The text of the decision on textiles and clothing reads in part (GATT, *News of the Uruguay Round*, NUR 027 [24 April, 1989], p.8), "With a view to achieving substantive results in [the textiles and clothing] area of the negotiations . . . the Ministers agree that:

(a) substantive negotiations will begin in April 1989 in order to reach agreement within the time frame of the Uruguay Round on modalities for the integration of this sector into GATT . . .

(b) such modalities . . . should cover the phasing out of restrictions, the time span for such a process of integration, and the progressive character of the

process which should commence following the conclusion of the negotiations in 1990.

3. For a survey of such proposals see the paper by Sanjoy Bagchi, "Textiles in the Uruguay Round: Alternative Modalities for Integration into GATT," in this volume.

4. While the MFA is a derogation from GATT, the Arrangement is managed by the GATT Textiles Committee.

5. The text of the MFA is to be found in the General Agreement on Tariffs and Trade, *Basic Instruments and Selected Documents, Twentieth Supplement* (GATT/1974-1). The interpretation of the MFA, however, has been modified via the protocols of extension of the various arrangements.

6. Cline estimates that the U.S. would capture net welfare gains of over \$8 billion per year from complete liberalization of textile and apparel trade. (See William R. Cline, *The Future of World Trade in Textiles and Apparel*, Washington, D.C.: Institute for International Economics, 1987.)

7. The proposal to return textile trade to control by tariffs alone is not new. It is implicit in the GATT Ministerial Declarations (Geneva, November, 1982 and Punta del Este, September 1986) calling for a return of textile trade to the normal workings of GATT and specific in other proposals. (See, for example, Martin Wolf, "How to Unravel the MFA" *The World Economy*, Vol. 8, No. 3, September 1985, for an example of such a proposal.)

8. See, for example, Hufbauer, G. C. and Schott, J. J., *Trading for Growth: The Next Round of Trade Negotiation*, Institute for International Economics, Washington D.C., September 1985, and Lawrence, R. Z., and Litan, R. E., *Saving Free Trade: A Pragmatic Approach*, Washington, D.C., The Brookings Institution, 1986. Retariffication was proposed by the UNCTAD secretariat for consideration by governments at the UNCTAD VII conference in July 1987.

9. The discriminatory application of the tariff quotas only to those countries currently restraining their exports is inconsistent with GATT, and the penalty tariff may increase the tariff charged above bound rates for the countries to which it applies. But this treatment under the tariff-quota would not be any more discriminatory nor restrict trade any more severely than the current arrangements under the MFA. Moreover, it would be temporary, and, would provide a mechanism to phase out the discrimination. The legal status of the temporary transitional tariff-quota arrangement could be clarified by obtaining a GATT waiver.

10. Licenses transferred to exporting countries could be valid only for exports from that particular country, or they could be global that is, valid for exports from any country. The licenses would be more valuable to the exporting countries if they were global, because the exporting country government could always sell them to other countries if so desired. The transfer of licenses among countries would alter the total volume of trade even during this initial phase, however, if the transfer resulted in filling quotas that otherwise would not have been filled.

11. Transferring the licenses to the exporting countries is an important feature of our proposal. There is a precedent for this procedure, in that the U.S. Department of Agriculture administers the sugar quota program by issuing "certificates of eligibility" to import sugar, which are sent to the exporting countries. Many

exporting countries use the allocation of MFA export licenses to influence the composition of their exports or to encourage exports to nonrestrained markets. See Hamilton (1986) and Bark and de Melo (1988). Exporting country governments can continue to allocate the licenses in any way they see fit.

12. To simplify the diagram we have assumed that supply is infinitely elastic in the restrained countries, but less than infinitely elastic in the unrestrained. These assumptions could be dropped without altering the conclusions. We also assume for simplicity that no tariff is levied on the product. Tariffs also could be included without changing the fundamental conclusions. Indeed, the high MFN tariffs remain on most textile product imports, and one goal of the proposal is to return the trading system to the normal operation of just these MFN rates.

13. See Bergsten C. F., K. A. Elliott, J. Schott and W. Takacs, 1987, *Auction Quotas And U.S. Trade Policy*, Institute for International Economics, Washington, D.C., for details of how these auctions could be organized.

14. If the penalty rate on other textile categories falls far enough so that imports occur and prices of these potential substitute products fall, the import demand curve for the product we are considering would presumably shift leftward. The reduction in demand will first cut into unrestrained third country exports and, by lowering the equilibrium price, reduce the quota rents but not the export levels of the restrained countries. Demand could fall sufficiently, however, to reduce export levels of less competitive restraining countries, and make some of the quotas redundant.

15. Silberston (1988) favors quota expansion over tariff quotas as a method of liberalizing the MFA because there would be no loss of quota rents to the developing countries and they would not lose control over their own export quotas. As we have pointed out above, transferring the licenses for within-quota imports under the tariff quota to the exporting countries would allow them, at least at the beginning of the reform process, to retain both control and the rents. The exporting countries would gradually lose rents and control over quota allocation as smaller proportions of the licenses are transferred to them, but the more competitive countries would be compensated by higher market shares. As Hamilton (1988) points out, there must be some incentive for the importing countries to agree to a liberalization. Revenue from license auctions, control of the system, and a gradual, rather than precipitous, adjustment of their import-competing industries under this proposal constitute this incentive.

16. Australia currently is undertaking a unilateral liberalization of textile, apparel, and footwear trade using tariff quotas. In the Australian liberalization quotas were converted to tariff quotas in which the quota ceilings for most categories of imports grew annually during the 1980s by the sum of a market growth factor and a quota expansion factor. The penalty tariff rates on most categories of imports remained the same until 1989, when they fell significantly. For more details of the Australian tariff quota system, see Industries Assistance Commission *Annual Reports*.

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The World Bank

The Multi-Fibre Arrangement (MFA) is a framework of “voluntary export restraints”—mainly quotas—covering, and often restricting, a predominant portion of exports of textile fibers, textiles, and clothing from developing countries to industrial countries. The MFA is the most comprehensive and discriminatory deformation of the international trading system. Consumers in industrial countries are overcharged billions of dollars every year because of the MFA quotas, while developing countries that rely on exports of textiles and clothing struggle with restrictions.

This volume is the result of a workshop that brought together academic researchers, textile experts, and negotiators to address the damaging effects of the MFA on the trade of developing countries as well as possible ways to phase out the MFA and incorporate the textiles and clothing sector into the mainstream of the international trading system. The twelve chapters are grouped under three themes: global perspectives, established and emerging exporters’ perspectives, and alternative approaches to returning textiles and clothing to normal trading rules of the General Agreement on Tariffs and Trade (GATT).

Developing countries insist—and industrial countries realize—that an agreement on dismantling the MFA is necessary for the successful conclusion of the current Uruguay Round of Multilateral Trade Negotiations under the auspices of the GATT. The challenge is to find ways to incorporate textiles and clothing into the GATT without compromising its basic disciplines.

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