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Textile Policy Issues for Developing Countries

Prepared by the

Regional and Country Studies Branch

Division for Industrial Studies

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PREFACE

The Regional and Country Studies Branch has developed its current Economic Research Services programme in response to requirements for analyses and information for industrial policy-making in individual developing countries.

Through this programme, the Branch is regularly assisting policy-makers in developing countries to monitor pertinent developments at the national and regional levels, in particular as concerns industrial policies in other countries and programmes to upgrade relevant production processes and products; emerging technological trends; prospective changes in national and international markets; relevant trade policies of main trading partners.

This study aims at providing policy makers in developing countries information relevant to the restructuring of textile and clothing complexes in their countries. In the past, textile and clothing industries have played key roles in the economic development of many Third World countries. Yet, recent developments in the international textile-clothing system indicate that both industries will not automatically contribute similar stimuli to economic development in the future. Changes in international competitiveness and wide-spread policy interventions have changed the "rules of the game". However, whereas policy interventions in the field of trade policies have received considerable attention in the past, interventions in the field of industrial policies have been relatively neglected in the public discussion. Yet, it is these interventions in the field of industrial policies which tend to have a deeper and longer lasting impact on the future of the textile and clothing industries in developing countries. This study tries to fill this gap through a summary of major changes of international parameters for developing countries, an evaluation of the past experience of developing and developed countries in the field of textile policies, and an assessment of key textile policy issues for developing countries which want to restructure their textile and clothing industries in order to meet the challenges of the future.

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Executive Summary

The expansion of textile and clothing exports has been fundamental to the economic growth of East Asian developing countries during the last two decades. Yet, changes in the international textile and clothing system indicate that in the future the contribution of both industries to economic development might differ from the past. Developing countries will therefore have to adjust their textile and clothing industries to new international parameters, in order to secure existing or develop new comparative advantages. This study aims at supporting pertinent efforts of policy makers and industry in developing countries.

Chapter one provides an analytical overview of the new parameters characterizing the international textile-clothing system. A first set of parameters is given by the changing structure of supply and demand in international trade. Changes are analysed in terms of market shares by country and product groups. Key trends of the changing commodity composition of world trade are the steady decline of world export shares of yarns and fabrics, and the rapidly growing share of garments. These changes of trade flows reflect deep changes in the international division of labour, resulting from changes of comparative advantages of individual countries and country groups.

The developed market economies (DMEs) experienced a continuous reduction of their shares in world export markets, accompanied by a continuous rise of their share in world imports, resulting in negative trade balances since the mid-1970s. A stabilizing element for the DMEs' exports were strong and continuously increasing exports of clothing, a surprising result given the labour-intensity of the production process. Yet, the largest part of these exports (88 per cent) constitute intra-industry trade between DMEs, for which cost factors are not the main determinants.

In the group of developing countries, two sub-groups are being distinguished on the basis of per capita income and shares in specific markets: the group of "advanced textile exporters" (ATEs, including Brazil, Hong Kong, the Republic of Korea, Mexico and Yugoslavia), and all "Other Developing Economies" (ODEs). The ATEs had achieved positive balances of textile-clothing trade by the mid-1960s already. This surplus was largely based on garment exports, which had reached a share of 76 per cent of their total textile-clothing exports in 1985. The ODEs played a relatively modest role in world trade of textile and clothing goods up to the mid-1970s, and grey and processed yarns constituted a major element of their export basket. It was not before 1980 that expanding clothing exports could eliminate their overall deficit in textiles and clothing trade.

Combining the changing textile and clothing trade patterns of ATEs and ODEs allows to identify a common pattern of the development of textile and clothing industries in developing countries. A characteristic feature of the pattern in small and medium developing countries is a significant trade deficit in textile goods during early stages of development, resulting from insufficient capacities to fully serve domestic demand and, at later stages, to support rapidly expanding exports of garments. In many developing countries such garment exports originate from manufacturers based in export-processing zones, utilizing duty-free imports of intermediate textile goods for further processing. In the course of industrial development, many developing countries

succeeded in establishing increasingly vertically integrated textile-clothing complexes which in advanced stages became net-exporters. Yet, this general, historical pattern does neither fully reflect the experience of every individual developing country, nor can its persistence be automatically assumed in the future. Some qualifications need to be made in this regard. Only a few countries fully completed import-substitution of textile products and even managed to achieve a trade surplus for such products. The fact that the majority of developing countries continue to be net-importers of textile goods reflects on the one hand the difficulties to advance from a garment-export-led growth pattern (with parallel imports of textiles) to an integrated development of textile-clothing complexes. In fact, in recent years in some developing countries a trend-reversal can be observed in terms of an again growing dependence on textile imports. On the other hand, it also reflects the success of industrialized countries during the last decade in modernizing their textile industries in order to regain comparative advantages. This success was in many industrialized (and partly also advanced developing) countries, as is further elaborated in chapter 3, the result of sector-specific industrial policy programmes. These policies aimed at modernizing the textile industries of the respective countries and adjusting their product-mix to new market requirements in order to regain or secure new and sound long-term comparative advantages.

The occurrence of significant structural changes in the textile and clothing industries was not limited to the international level, but can be also observed within individual countries. Until recently, the textile and clothing industries in most countries have been characterized by a large number of small and medium-sized firms, often family-owned. During the last decades, however, a trend towards oligopolistic market structures became visible, particularly in the production of man-made fibres (MMF).

Internationalization and concentration trends are also evident, although to a lesser degree in the textile industry. Unlike in the case of MMF production, however, this does not involve substantial foreign direct investments. Instead, internationalization trends appear through the substantial shifts that have occurred in the international division of production, the development of international linkages by European, Japanese, and United States trading companies, and the industrial adjustments being undertaken by national industries and promoted by their governments. Concentration pressures have not been as strong in clothing. While technological change has been relatively rapid in cutting and pressing, it has been considerably slower in sewing, the labour-intensive nucleus of this particular segment of the textile complex. Yet, recent technological advances indicate that the production of clothing might undergo sweeping technological and, consequently, structural changes, similar to past developments in textile production.

Crucial challenges emerge from these international trends for developing countries' textile and clothing industries. In particular, traditional models such as "Heckscher-Ohlin", explaining changing comparative advantages with evolutionary changes of relative factor endowments, have only limited analytical value in explaining observable trends. Instead, the international textile-clothing system is advancing from "man-made fibres" to "man-made comparative advantages". Key elements determining future comparative advantages in textiles and clothing production are highly susceptible to policy action, such as access to new technologies and support to their dissemination, access to inputs and markets, and rules affecting labour costs and labour productivity. It is therefore essential for developing countries to closely

monitor the international textile policy experience and to design and implement corresponding policies in support of their own textile and clothing industries.

Governments of developing countries have applied a wide range of policy measures in support of the development of textile and clothing industries in their countries. An overview of these policies is presented in chapter 2. During the 1960s and 1970s, the main emphasis of these policies was on industrial expansion. Policy measures include tariff and non-tariff protection, tax-based incentives and sectoral subsidies. In the early 1980s, however, additional policy objectives became apparent. Many countries were faced with the need to secure the survival of their industries in a period of international recession. Some developing countries, such as the Republic of Korea, which had reached a more advanced stage of the development of their textile-clothing industries, realized that they had to adopt new approaches in order to adjust their industries to lower cost competitors in other developing countries. Subsidies to promote modernization and support to the establishment of auxiliary services formed essential elements of these new approaches. A case study of textile policies in the Republic of Korea concludes chapter 2.

An overview of textile policies adopted by developed countries is presented in chapter 3. In broad categories, textile and clothing industries in industrialized countries benefitted from general industrial incentives, which were being provided to all industrial branches alike; special incentives provided to promote development in structurally less developed regions; and/or branch-specific incentives. A key element distinguishing textile policies of industrialized countries from textile policies applied by most developing countries is the emphasis placed by industrialized countries on research and development, as a basis for re-establishing sound, long-term comparative advantages. Basic philosophies and instruments used differed significantly between individual countries, ranging from the strict rejection of branch-specific intervention and reliance on general or regional incentives (e.g. F.R. Germany, U.S.A.) to comprehensive "Textile Plans" (e.g. Belgium and France).

Comprehensive, sector-specific policy packages were adopted by industrialized countries in response to the emerging competition from Third World countries. Such textile plans generally specified industry-wide restructuring objectives; they provided financial support to companies to re-establish their financial viability ("balance-sheet restructuring"), to modernize the equipment and adapt the product-mix to changed market requirements ("technological and product-mix restructuring"), and to make changes in the company structure and technology consistent with the available labour force; and finally, these plans established new institutional arrangements, involving the main agents concerned, in order to cooperate in the implementation of the plan and/or monitor its progress. Case studies of the Belgian and Spanish textile plans conclude chapter 3.

Chapter 4 summarizes key areas and policy issues for the restructuring of textile-clothing complexes in developing countries, taking into account the international policy experience. In response to emerging low-cost competition from developing countries, industrialized countries have implemented restructuring programmes. In many countries, these programmes have been very successful, and resulted in highly efficient, versatile, but also very capital-intensive industries. It appears, therefore, that the 1990s will constitute a "third round" in the competition between developed and developing

countries for international market positions, in which the crucial objective will not be "restructuring to meet low-cost competition", but "restructuring to meet high-efficiency competition". The main actors in this round will need to be the developing countries, which now have to "re-establish" already lost or to consolidate threatened comparative advantages.

The first step towards the design of a pertinent policy programme should be an assessment of the industry in national and international perspective, incorporating both supply and demand aspects. Based on this assessment, restructuring objectives may be identified which would be conducive to securing the industry's long-term comparative advantage. A key objective within this framework is the technological upgrading of the industry. Crucial policy decisions are called for in this regard, concerning what type of modernization investments should benefit from incentives. Given resource constraints, a selective approach is advisable, supporting the modernization of those critical links in the production chain which constitute key bottlenecks, preventing the textile industry from achieving international efficiency levels.

Technological modernization is only one dimension, however, of the restructuring process. "Market effectiveness" is gaining increasingly weight as determinant of comparative advantages, and involves the strengthening of market intelligence, productive flexibility and efforts to develop auxiliary services.

A key issue of a restructuring programme is the role of labour in the restructuring process and the impact of the restructuring programme on the labour force. A flexibilization of the labour market may be required in many countries in order to allow the required changes of the industry structure to take place. It is suggested that solutions be sought which lead to the desired results without simply eliminating acquired rights of the labour force. One solution would be the conclusion of specific labour contracts, covering only those enterprises participating in the restructuring programme.

A final issue is the establishment of an appropriate institutional framework. An approach which has been successfully applied is the establishment of a permanent, tri-partite body, involving the Government, industry and labour, in order to discuss the key elements and instruments of a restructuring programme, to monitor the restructuring process and to serve as a forum for settling disputes between various actors.

ABBREVIATIONS

ATEs	Advanced Textile Exporters (for definition, c.f. page 3)
DMEs	Developed Market Economies
EC	European Community
ITCB	Institute for Textile and Confection of Belgium
KOFOTI	Korea Federation of Textile Industries
MFA	Multi Fibre Arrangement
MMF	Man-Made Fibres
NMNS	National Company for Financing and Restructuring of National Sectors (Belgium)
ODEs	Other Developing Economies (excl. ATEs)
R & D	Research and Development

1. Changes in the international textile industry: New parameters for developing countries

Being in many countries one of the largest industrial employers and the key industrial earner of foreign exchange, the textile and clothing industry has been usually considered - depending on the point of view - as an essential promoter of industrial development in developing countries or as a major threat to industrial employment in the industrialized countries. "Export-led growth", the magic formula used to describe the exceptionally high growth rates of several Asian developing countries over the last two decades, was often used synonymously with "textile-led growth". Yet, recent trends in the international textile and clothing system indicate that in the future the contribution of both industries to economic development might differ from their roles in the development of certain Asian countries. This suspicion is not only founded in the persistence of tight international controls on trade with textile and clothing goods. New technologies, changes in the industry structure both within and between countries, and wide-spread government interventions through specific industrial policies are leading to new international constellations of competition and "man-made" comparative advantages. This chapter will outline and analyse some of the key trends in the international textile-clothing system which constitute new parameters for developing countries in their effort to promote their textile and clothing industries.

1.1 Changes in international textile-clothing trade: new customers and new suppliers

During the last two decades, significant changes occurred in the international trade flows of textile and clothing products, reflecting changes in the competitive positions of countries and country groupings. The entry of a growing number of developing countries into the world markets - and particularly the markets of industrialized countries - ultimately resulted in today's highly regulated system of textile and clothing trade, which in 1984 comprised 48 per cent of world exports of textiles and clothing. Protectionist barriers and the international recession led to a sharp reduction in the growth of global textile and clothing exports in the first half of the 1980s, compared to the preceding two decades.

Table 1 provides an overview of the changing commodity composition of world trade in textiles and clothing between 1965 and 1985. The steady decline of the world export shares of yarns and fabrics, for the former since the 1970s, for the latter since the 1960s, and the rapidly growing share of garments emerge as the key trends. In fact, yarns and fabrics experienced absolute declines in value terms in the early 1980s (cotton yarns since the mid-1970s), reflecting both the build-up of sizeable production capacities in developing countries and the growing vertical integration of their textile-clothing complexes. In the case of fabrics, rapidly growing exports of synthetic fabrics reached and surpassed the level of natural fabric exports in the 1970s and early 1980s, but exports of natural fabrics gained ground again since the mid-1970s and had come close to the level of synthetic fabric exports by 1985.

Table 1. World exports of selected textile and clothing goods, 1965-1985

	Values (in thousands of dollars)										Growth rates (per cent)			
	1965	(Per cent)	1970	(Per cent)	1975	(Per cent)	1980	(Per cent)	1985	(Per cent)	65/70	70/75	75/80	80/85
Grey cotton yarn	209,501	(4.0)	306,602	(3.0)	683,722	(2.8)	2,446,821	(4.4)	2,390,316	(3.9)	7.9	17.4	29.0	-0.5
Processed cotton yarn	168,259	(3.2)	225,376	(2.2)	471,126	(1.9)	183,122	(0.3)	182,429	(0.3)	6.0	15.9	-17.2	-0.1
Synthetic yarn	709,590	(13.5)	1,766,770	(17.5)	3,540,809	(14.3)	6,301,710	(11.3)	5,752,724	(9.4)	20.0	14.9	12.2	-1.8
Cotton fabrics, woven	1,407,393	(26.8)	1,452,339	(14.4)	3,172,269	(12.8)	7,094,861	(12.7)	6,991,924	(11.5)	0.6	16.9	17.5	-0.3
Synthetic fabrics, woven	505,742	(9.6)	1,497,287	(14.9)	3,847,916	(15.6)	7,894,267	(14.2)	7,646,004	(12.5)	24.2	20.8	15.5	-0.6
Clothing of textiles, knitted	1,060,864	(20.2)	2,264,845	(22.5)	6,967,791	(28.2)	18,115,022	(32.5)	21,809,535	(35.8)	16.4	25.2	21.1	3.8
Accessories	232,259	(4.4)	397,624	(3.9)	813,297	(3.3)	1,615,005	(2.9)	1,669,997	(2.7)	11.4	15.4	14.7	0.7
Knitwear	962,668	(18.3)	2,165,706	(21.5)	5,243,905	(21.2)	12,011,364	(21.6)	14,536,180	(23.8)	17.6	19.3	18.0	3.9
Total	5,256,276		10,076,609		24,740,835		55,682,172		60,979,110		13.9	19.7	17.6	1.8
Shares (per cent)														
Yarns	20.7		22.7		19.0		16.0		13.6					
Fabrics	36.4		29.4		28.4		26.9		24.0					
Clothing/Knitwear/Accessories	42.9		47.9		52.6		57.1		62.4					

Source: UNIDO Data Base.

The changing product composition of world trade flows of textile and clothing goods reflects deep changes in the industry's international division of labour, resulting from changes of comparative advantages of individual countries and country groups. Table 2 and graphs 1 and 2 provide an overview of the changing world-export shares of the developed market economies (DMEs), the centrally planned economies (CPEs), and the developing countries. Two sub-groups of developing countries are distinguished according to the pace and timing of their entry into the world market of textiles and clothing. A first sub-group are those developing countries which (a) have reached a more advanced level of income per capita 1/ and (b) which at the same time have gained during the 1970s/early 1980s major shares in the textiles/clothing import markets of the United States and/or the European Community. These countries which will be referred to as "Advanced Textile Exporters" (ATEs) in the following, are Hong Kong, the Republic of Korea, Brazil, Mexico and Yugoslavia, all of which satisfy criterion (a). Criterion (b) is satisfied by the first two countries with respect to both the European and American market, whereas Brazil and Mexico have gained relatively strong positions in the US market and Yugoslavia in EC markets only.2/ All other developing countries will be referred to as "Other Developing Economies" (ODEs) in the following.

As a group, the ATEs expanded their share in world export markets at an increasing pace from the mid-1960s to the mid-1970s. Whereas between 1965 and 1970 the ATEs gained market shares at the expense of both the developed market economies (in the following referred to as DMEs) and the ODEs, after 1970, the strengthened position of ATEs in international markets was fully at the expense of the DME exports. In the second half of the 1970s, the ATE share in world exports basically stagnated in view of rapidly expanding exports of ODEs.

The DMEs' shares in world export markets were thus reduced in the first half of the 1970s due to rapidly expanding exports of the ATEs, whereas a further significant reduction in the second half of the 1970s was mainly due to rapidly growing exports from ODEs. Despite an average annual increase of DMEs' exports by more than 16 per cent between 1970 and 1980, their share in world exports was reduced from 80 to 60 per cent. In the 1980s the DMEs suffered a further sharp reduction of their export share in the world market, this time, however, due to rapidly expanding exports of both ATEs and ODEs, and due to an absolute contraction of their own exports.

This contraction also affected intra-DME exports, which since 1970 had accounted for more than three-quarters of total DMEs' exports of textiles and clothing. This share almost remained constant throughout the 1970s and the first half of the 1980s, despite declining overall shares of DMEs in the world export markets of textiles and clothing. From this observation can be concluded that growing exports from developing countries also increasingly substituted trade between the developed market economies.3/

1/ These countries are classified by the World Bank as "upper middle-income" countries. The rationale of this criterion is the focus of this chapter on global changes at various processing stages of the textile/clothing production chain. These changes are closely correlated with development stages, a proxy of which is taken here to be income per capita.

2/ Taiwan, Province of China, would have fulfilled both criteria, but could not be included as its trade is not explicitly included in UN trade statistics.

3/ Otherwise the share of intra-DME exports would have increased in view of the shrinking DMEs' shares in world export markets.

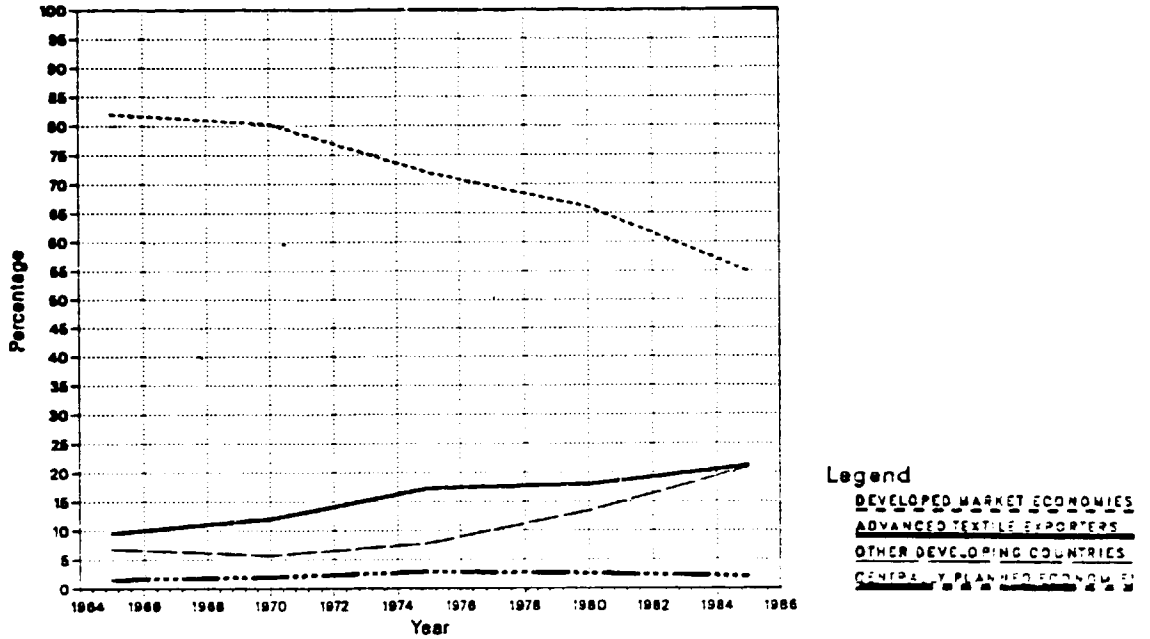
Table 2. Share of selected country groups in world trade of
textile and clothing goods

(Percentage)

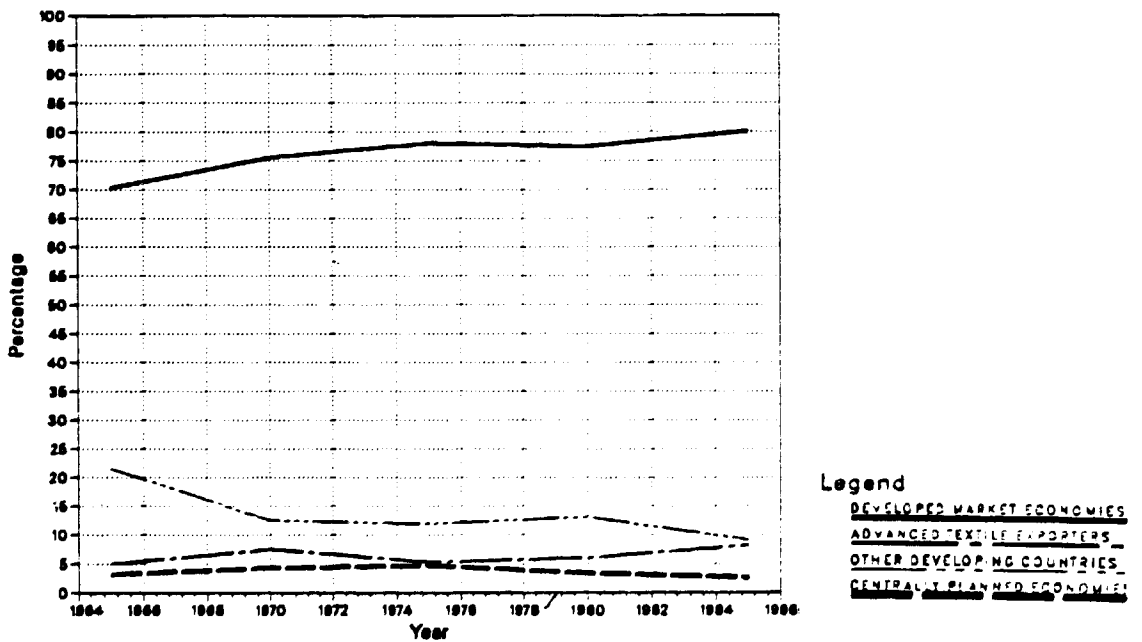
<u>Exports</u>					
	1965	1970	1975	1980	1985
Developed Market Economies	82.0	80.3	72.0	66.0	55.8
Advanced Textile Exporters	9.6	12.0	17.3	18.0	21.2
Other Developing Economies	6.8	5.7	7.8	13.4	20.9
Centrally Planned Economies	1.6	2.0	2.9	2.6	2.1
<u>Imports</u>					
	1965	1970	1975	1980	1985
Developed Market Economies	70.3	75.6	78.0	77.5	80.1
Advanced Textile Exporters	5.0	7.5	5.3	6.0	8.2
Other Developing Economies	21.5	12.5	11.9	13.1	9.1
Centrally Planned Economies	3.2	4.3	4.7	3.4	2.6

Source: UNIDO Data Base.

Graph 1. Shares of country groups in world exports of textiles and clothing, 1965 - 1985



Graph 2. Shares of country groups in world imports of textiles and clothing, 1965 - 1985



Parallel to the decline of the DMEs' share in world exports, their share in world imports increased. As a result, the trade balance of the textile/clothing complex in the DMEs became negative in the mid-1970s, when the DMEs' share in world imports had become larger than their share in world exports.^{1/} The increase of the DMEs' share in world imports is largely based on "trade creation", i.e. "additional" imports of goods which they had previously produced themselves, and not on "trade diversion" through growing economic integration between the DMEs. The share of intra-DME trade in total DME imports fell from 80 per cent in 1965 to 50 per cent in 1985.

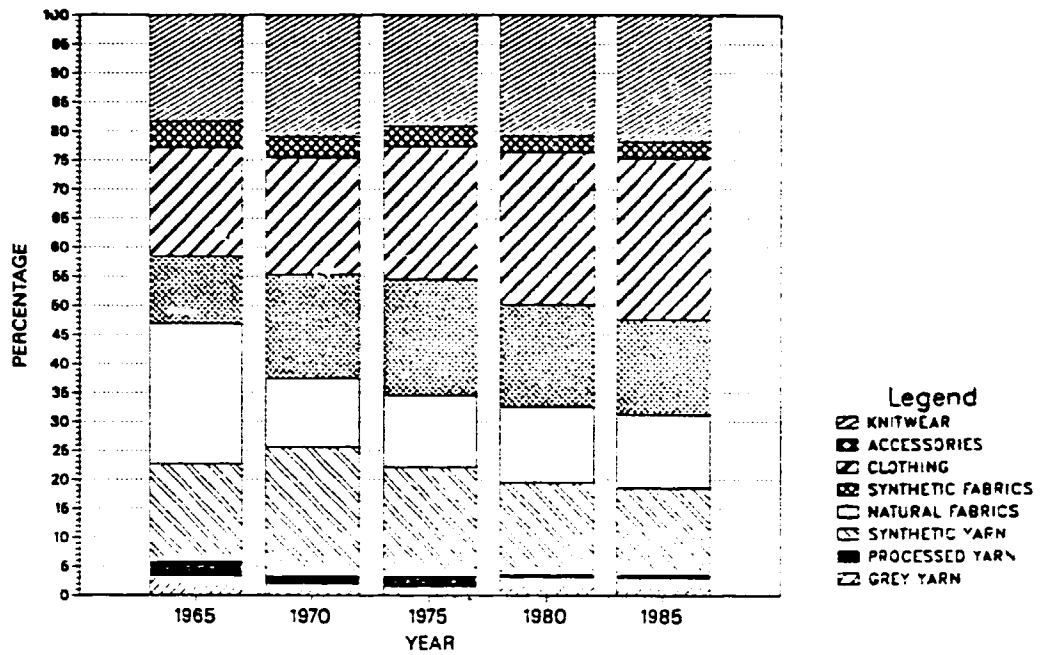
These changes in the overall position of DMEs in international textile and clothing markets went hand in hand with changes of their trade structure (graphs 3 and 4). Exports of natural yarns played only a negligible role throughout the period, whereas exports of synthetic yarns peaked in 1970 with a share of 22.2 per cent in response to growing import demand from both the ATEs and ODEs. Yet, with the build-up of synthetic yarn production capacities in (particularly advanced) developing countries the weight of synthetic yarns in the DMEs' export basket was reduced again. The share of fabrics was reduced from almost 36.0 per cent in 1965 to around 30 per cent in 1970, and fluctuated around this value throughout the period. The "fabric mix", however, changed significantly: synthetic fabrics increased their share from about one-third of fabric exports in 1965 to almost two-thirds in 1975, and still accounted for 56 per cent of fabric exports in 1985. The possibly most surprising feature, given the labour intensity of the production process, in the changing composition of DMEs' exports is the strong and continuous increase of clothing exports. Their share increased from 18.7 per cent in 1965 to 27.7 per cent in 1985, representing largely intra-industry trade: between 1970 and 1985 the share of clothing exports directed to other DMEs fluctuated between 87 and 88 per cent of total DMEs' clothing exports, and the growth of this trade flow accounts for almost 25 per cent of the total increase of DMEs' textile and clothing exports between 1965 and 1985. Combined clothing and knitwear exports (in the case of the latter, 90.6 per cent were destined to other DMEs in 1985) accounted even for 51 per cent of the DME export increase over this period. Thus, intra-industrial trade between DMEs in knitwear and particularly clothing (and here it may be assumed that cost factors are not the major determinant) has increasingly played a stabilizing role for their textile and clothing exports in periods of newly emerging competitors in international markets.

These trends are correspondingly reflected on the import side, where woven cloths and knitwear continuously increased their combined shares in the DMEs' import basket, from 46.8 per cent in 1965 to 67.8 per cent in 1985. Of these imports, 41 per cent were purchased from other DMEs in 1985 (37.9 per cent of clothing imports, 45.6 per cent of knitwear imports). This, however, is significantly below the share of 75.9 per cent, which intra-DMEs' trade accounted for in the DMEs' clothing and knitwear imports in 1965.

The ATE countries' textile and clothing industries had achieved positive trade balances already in 1965, when their share in world exports was almost three times as large as their share in world imports. The ATEs gained rapidly shares in international markets until the mid-1970s. Between 1975 and 1980, they could only insignificantly improve their international market positions, as their exports met both increasing protectionist barriers in industrialized countries and growing low-cost competition from other developing countries. Yet, in the 1980s, the ATEs could further increase their shares in international markets, at the expense of exports from the DMEs. The expansion

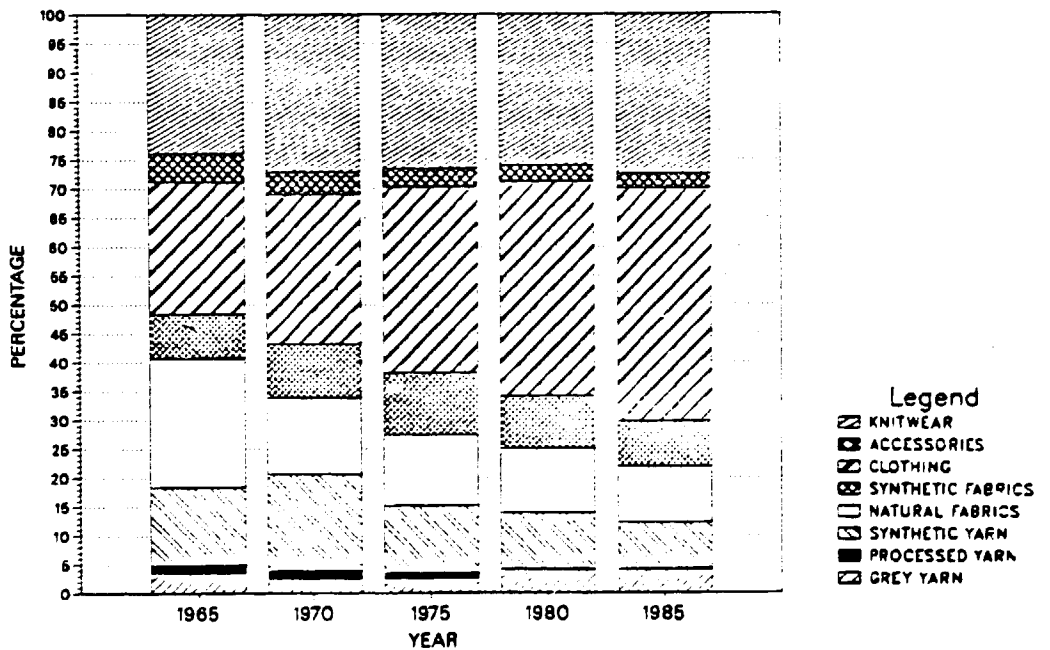
^{1/} Yet, this balance changes again in favour of the DMEs, if exports of textile machinery and intermediate products are taken into account.

Graph 3. Export composition of Developed Market Economies, 1965 - 1985



Source: Table A-1.

Graph 4. Import composition of Developed Market Economies, 1965 - 1985



Source: Table A-1.

of ATEs' exports was accompanied by an increase of their share in world imports of textiles and clothing, from 3.4 per cent in 1965 to 8.2 per cent in 1985.

Already in 1965 exports of ATEs were concentrated on clothing and knitwear, which accounted for 63 per cent of their textile and clothing exports (graph 5). By 1985, this share had further increased to 76.5 per cent. Natural fabrics exports equalled knitwear exports in 1965, both accounting for 26.4 per cent of the total. Between 1965 and 1975, natural fabrics lost rapidly ground in their export basket, and further lost importance until 1985, when their share had fallen to 6.2 per cent. Exports of synthetic fabrics, on the other hand, continuously increased their share and had become the third-largest product category in the ATEs' export basket in 1985, accounting for 10.6 per cent.^{1/} Of these exports, 45.3 per cent were directed to the markets of the ODEs, 20.6 per cent was trade between the ATEs, and 25.8 per cent went to DMEs. Trade between developing countries thus accounts for two-thirds of synthetic fabric exports from ATEs and constitutes the most important single trade flow of textile and clothing goods between developing countries.

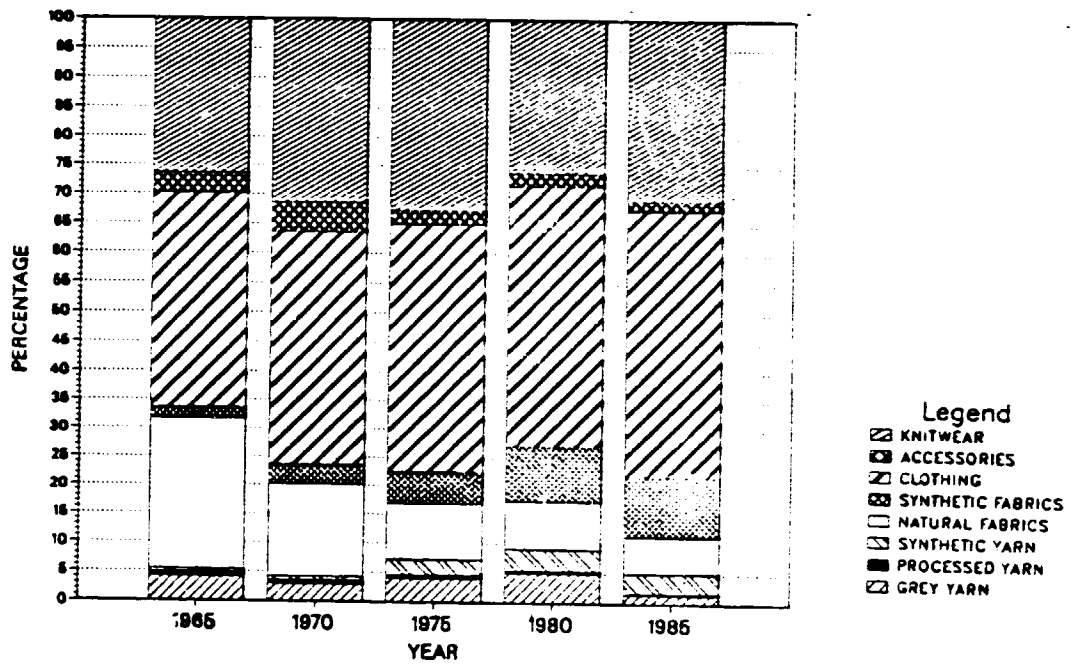
Fabrics constituted the largest product group in the ATEs' import bill throughout the period, although their share declined from 59.3 per cent in 1965 to 48.7 per cent in 1985. Yet, the "fabric mix" changed. Cotton fabrics lost, and synthetic fabrics gained rapidly weight between 1965 and 1970, reflecting adjustments of the ATEs' import dependent clothing export industries to new demand requirements. Since then, the share of natural fabrics remained relatively stable around 20 per cent, but the share of synthetic fabrics fell again continuously, reflecting the establishment of production capacities in ATEs, the stabilization of international demand for natural fabrics and the reduction of petroleum prices. The supplier structure of these imports remained relatively constant in the case of natural fabrics, where DMEs supplied between 35 and 40 per cent, and ODEs between 45 and 47 per cent (graph 6). The supplier structure of the ATEs' imports of synthetic fabrics changed dramatically, however, as the DMEs' share in ATEs' import markets was reduced from 88.9 per cent in 1965 to 46.4 per cent in 1985. "Winners" were the ODEs and intra-ATE trade, which, almost not existent in 1965, accounted for 24.8 per cent and 26.4 per cent of ATEs' imports of synthetic fabrics in 1985.

The group of "other developing economies" (ODEs) played a relatively modest role in world trade of textile and clothing goods up to the mid-1970s. In fact, ODEs were highly dependent on imports of textile and clothing products throughout the 1960s and 1970s. In 1965 they accounted for 21.8 per cent of world imports of these products, but only for 6.8 per cent of world exports. In the second half of the 1960s, the establishment of sizeable production capacities in these countries led to a steep reduction of their share in world imports. It had fallen to 12.7 per cent in 1970 and fluctuated around this level since. Yet it was not before 1980 that expanding exports could eliminate the ODEs' overall trade deficit in textiles and clothing. Subsequently they became significant net-exporters, and in 1985 their 20.9 per cent share in world exports compared to a 9.1 per cent share in world imports.

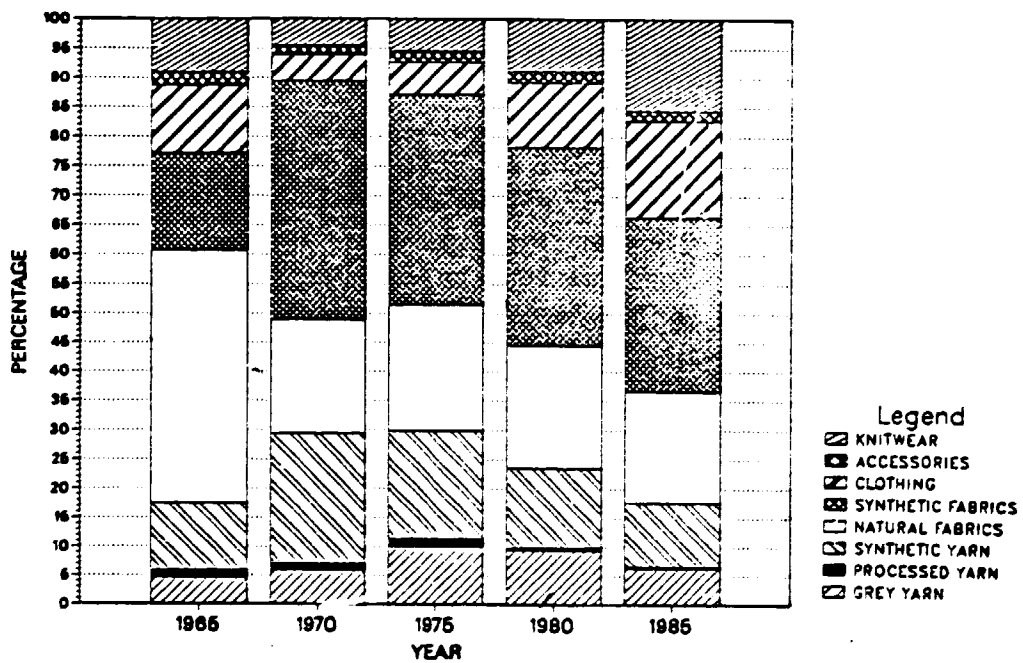
Between 1975 and 1985, the ODEs almost tripled their share in world export markets, from 7.8 per cent in 1975 to 20.9 per cent in 1985. With exports growing at an average annual rate of 31.1 per cent, the rapid

^{1/} In view of high synthetic fibre capacities in Taiwan, province of China, this share even would be significantly higher, if Taiwan would have been included.

Graph 5. Export composition of Advanced Textile-exporting Countries, 1965 - 1985



Graph 6. Import composition of Advanced Textile-exporting Countries



Source: Table A-2.

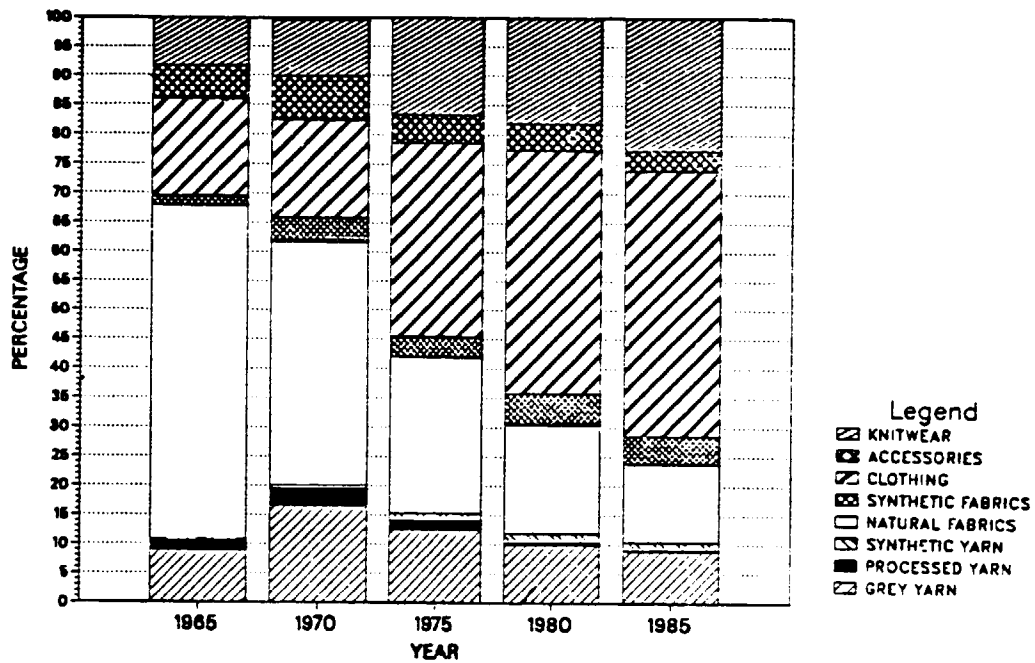
penetration of world export markets by ODEs between 1975 and 1980 was matched by a corresponding reduction of the DMEs' export shares. The relative position of ATEs remained largely unchanged, although their textile and clothing exports grew at an average annual rate of 18.6 per cent. The stagnating position of the ATEs between 1975 and 1980 is the result of the combined impact of growing trade barriers of DMEs against ATEs' exports, which facilitated the penetration of international markets by ODEs, and of the increased relative competitiveness of ODEs against ATEs. Between 1980 and 1985, the further steep rise of the ODEs' market share again went parallel to new market share gains of the ATEs, but the average annual export growth rates of ODEs (11.7 per cent) continued to be significantly higher than the growth rate recorded by the ATEs (4.3 per cent). Yet, export growth rates of both groups of developing countries fell significantly short of the rates recorded between 1975 and 1980, reflecting not only increasingly binding trade barriers, but also the impact of the recession in OECD countries on demand for textiles and clothing. However, a decrease of the value of DMEs' exports between 1980 and 1985 by a total of 6 per cent allowed market share gains of developing countries between 1980 and 1985, comparable to the gains achieved with much higher growth rates between 1975 and 1980.

Different from the other groups of countries, exports of grey and processed yarns constituted a major element of the ODEs' export basket until the mid-1970s, with a peak share of around one-fourth in 1970 (graph 7). The destination of these exports varied significantly with the level of processing: whereas 57.1 per cent of exports of grey yarns were delivered to developing countries, in the case of processed yarns the centrally planned economies (in the following: CPEs) purchased 52.6 per cent of exports from ODEs. By 1975, the latter share had increased to 73.7 per cent. Yet, by 1985, the share of processed yarns in the export basket of ODEs had dwindled to 0.1 per cent, reflecting both a sharp reduction of such imports by the CPEs and increasing degrees of forward integration of the textile complexes of the ODEs, whose exports of garments developed dynamically.^{1/} As a result of this, the share of garments in ODEs' exports rose from 30 per cent in 1975 to 40 per cent in 1980, and the share of ODEs in world exports of textile and clothing products rose from 7.8 per cent to 13.4 per cent. In the first half of the 1980s, the continuing inroad of ODEs' exporters into international textile and clothing markets was supported by a steep rise of knitwear exports, which grew in value terms at an average annual rate of 16.9 per cent between 1980 and 1985 and increased their share in the basket of ODEs textile and clothing exports from 18.3 per cent to 22.7 per cent.

Imports of ODEs are dominated by synthetic fabrics, which accounted for almost one-third of their textile-clothing imports in 1985, followed by clothing and synthetic yarns. Together, synthetic yarns and fabrics accounted for 50.3 per cent of ODEs' imports in 1985.

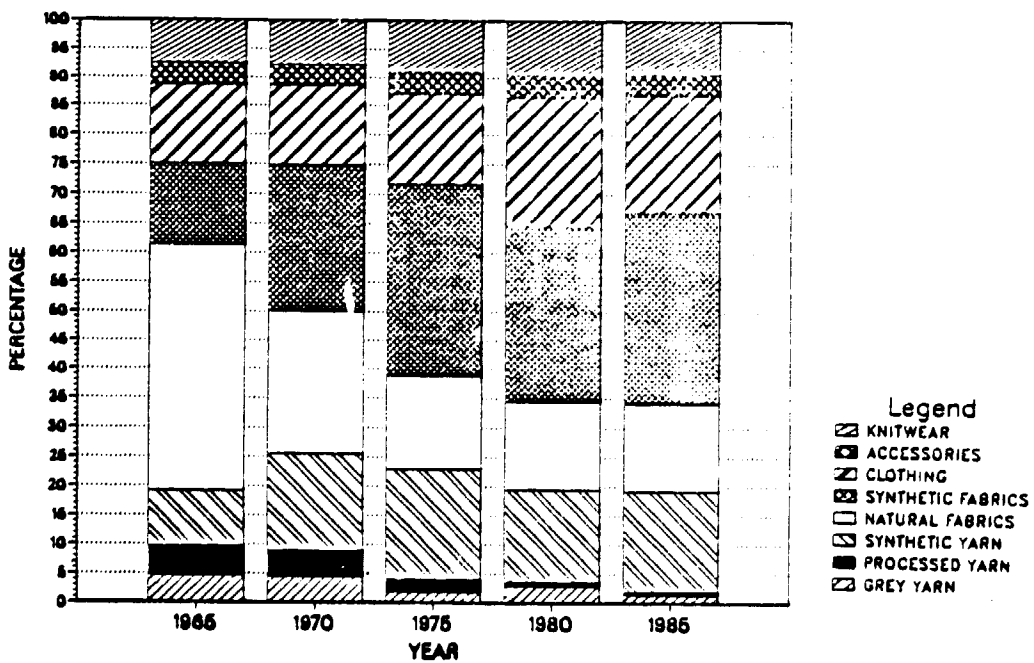
^{1/} For the latter reason, also the share of woven natural fabrics in the export basket of ODEs fell continuously, and was reduced to 13.4 per cent in 1985, compared to 51.7 per cent in 1965. These trends were supported by the growing protectionism of DMEs against garment exports of ATEs, which reserved niches for ODEs' exporters in these markets. It were basically these exports which eliminated by 1980 the overall textile/clothing trade deficit of ODEs.

Graph 7. Export composition of Other Developing Economies, 1965 - 1985



Source: Table A-3.

Graph 8. Import composition of Other Developing Economies, 1965 - 1985



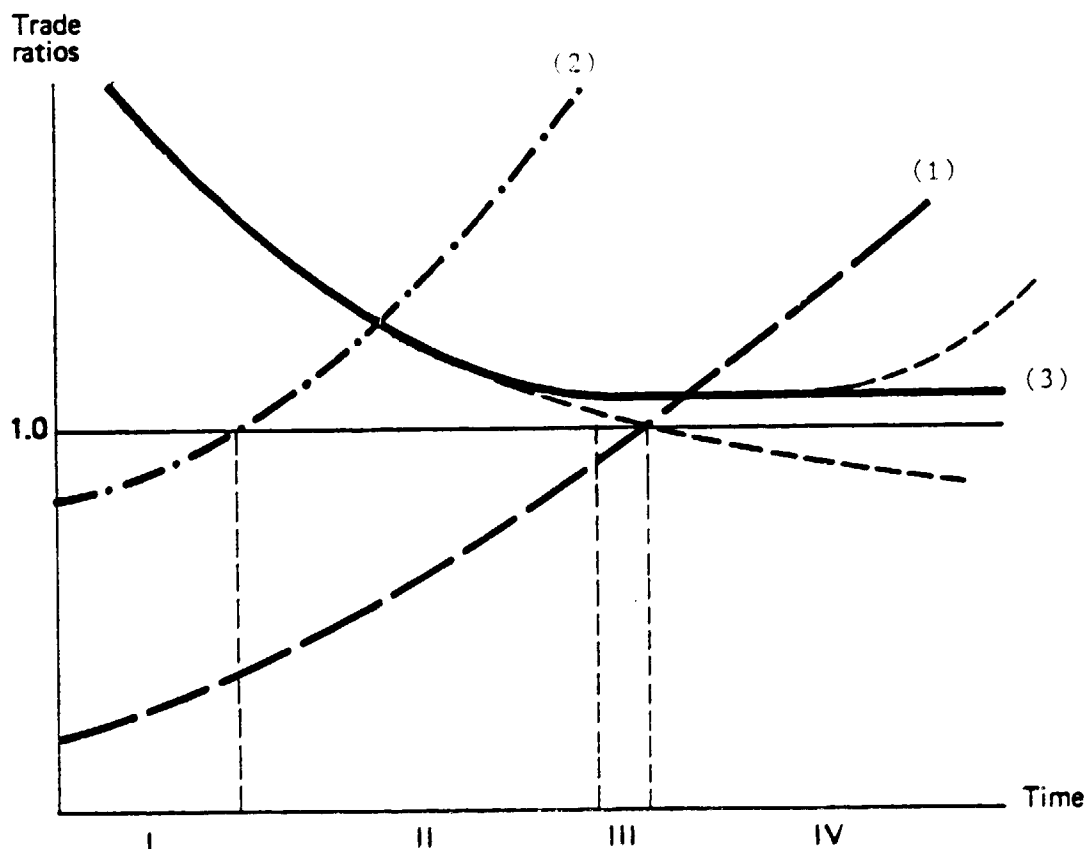
Source: Table A-3.

1.2. Textile and clothing industries and economic development: a fresh look

Combining the changing textile and clothing trade patterns of ATEs and ODEs since the 1960s, both in terms of the overall balance and changing composition of their textile/clothing trade, yields some insight into common patterns of the development of textile and clothing industries in developing countries. The pattern for small and medium developing countries is summarized in graph 9. Key variables considered are the changing net-trade balances of a developing country in the course of the development of its textile and clothing industry. Trade balances are considered separately for textiles, clothing and for the combined total of both product groups. To eliminate the scale problem resulting from differences in the size of individual developing countries and from corresponding differences in their absolute trade figures, changes in trade balances are illustrated utilizing

- (1) the ratios of exports over imports of textiles and clothing combined;
- (2) the ratio of exports over imports of clothing only; and, for demonstration purposes,
- (3) the ratio of imports over exports of textiles.

Graph 9. Development patterns of textile and clothing industries in small and medium developing countries



Thus, in the first two cases ratios with a value larger than one (i.e., all ratios denoted by points on the curves above the horizontal "1.0" line drawn parallel to the "time" axis) indicate the existence of net-exports, whereas in the latter case net-imports are being indicated.

The graph illustrates that developing countries are usually importers of textile and clothing products, before the trade balances of their textile and clothing complexes turn into the positive (phase IV, beginning with the intersection of line (1), denoting the export/import ratio for the combined total of both product groups, with the "1.0" line). Within the period of net-imports preceding this stage, three sub-phases can be typically observed:

- I. "Infant industry" phase, characterized by net-imports of both clothing (ratio of exports over imports smaller than one) and textiles (ratio of imports over exports larger than one), but with declining trend.
- II. "Export promotion cum import substitution" phase, during which the overall trade deficit of the textile and clothing complex is increasingly reduced by growing net-exports of clothing and advancing substitution of textile imports.
- III. "Clothing-led growth" phase, in which textile import substitution is terminated, though typically at a modest net-trade deficit of textile goods. Exports of clothing continue to expand, but the surplus of net-clothing exports is insufficient to compensate the persisting deficit of textile trade.
- IV. "Surplus phase", in which exports of clothing are larger than imports of textiles (IVa), and/or also textile exports are larger than textile imports (IVb).

Utilizing this four-phase approach, table 3 illustrates by countries the changes which occurred in the global textile-clothing system during the last two decades. During the 1960s, the majority of developing countries still were in the earliest phase of the development of their textile and clothing industries. Exceptions were developing countries with large internal markets and/or a sizeable domestic resource base (cotton) such as India, Mexico, Pakistan, Brazil. In large developing countries, trade tends to account for a smaller share of domestic production and consumption. The potential offered by the internal market, supported by protective government policies, favours the development of textile production for the domestic market and allows modest trade surpluses in textile goods at relatively early stages. Export-oriented clothing production, the driving force of the complex in stages III and IV(a) of the small/medium country pattern, has less relevance for the development of textile-clothing complexes in large developing countries. A second group of exceptions are outward-looking countries such as Hong Kong and the Republic of Korea (the latter since the mid-1960s).

By 1970, particularly Mediterranean countries had significantly advanced (Greece and Morocco from I to II, Spain and Turkey from I to IVb). This advance continued in the early 1970s, and by 1975 only Indonesia remained in phase I. Greece and Morocco had entered surplus phase IVa, and several of the countries often referred to as "second generation of newly industrializing countries" from the Asian region (plus another Mediterranean country, Tunisia) clustered in phases II and III. In the first half of the 1980s, all countries included in the table (except Singapore) had reached surplus phase IV. Yet, since the mid-1970s appears to be a "break" or at least retardation in the

Table 3. Changes in the global textile-clothing system

	1962	1965	1970	1975	1980-1985
Phase I	Colombia, Greece, Indonesia, Malaysia, Morocco, Philippines, Singapore, Sri Lanka, Thailand, Tunisia, Turkey	Colombia, Greece, Indonesia, Malaysia, Morocco, Philippines, Singapore, Sri Lanka, Thailand, Tunisia, Turkey	Indonesia, Malaysia, Thailand, Philippines, Tunisia	Indonesia	
Phase II	Rep. of Korea		Greece, Morocco, Singapore, Sri Lanka	Malaysia, Philippines, Singapore	Singapore
Phase III	Spain, Yugoslavia	Spain, Yugoslavia	Mexico ^{1/} , Yugoslavia	Sri Lanka, Thailand, Tunisia	
Phase IV(a)	Hong Kong	Hong Kong, India, Rep. of Korea, Mexico	Hong Kong, Rep. of Korea	Brazil, Hong Kong, Pakistan, Mexico, Morocco, Yugoslavia	Tunisia, Brazil, Hong Kong, Indonesia, Malaysia, Mexico, Morocco, Philippines, Thailand, Sri Lanka
Phase IV(b)	Brazil, Mexico ^{2/} , Portugal, India, Pakistan ^{2/}	Brazil, Mexico ^{2/} , Portugal, India, Pakistan ^{2/}	Portugal, India, Colombia, Pakistan, Spain, Turkey	Colombia, Greece, India, Rep. of Korea, Mexico, Portugal, Spain, Turkey	Colombia, Greece, India, Rep. of Korea, Portugal, Spain, Turkey

1/ Textile surplus.
2/ Clothing deficit.

Surplus phases
Deficit phases

Surplus phases
Deficit phases

"graduation process" which could be observed throughout the 1960s and 1970s. None of the countries which found themselves in phase IVa in 1975 managed to proceed to phase IVb (net-exports of both textiles and clothing), with the result that the majority of developing countries included in the table cluster in phase IVa.

In sum, a characteristic feature of the development of the textile and clothing industries in small and medium developing countries has been a significant trade deficit in textile goods, resulting from insufficient capacities to fully serve domestic demand and, at later stages, to support rapidly expanding exports of garments. In many developing countries such garment exports originate from manufacturers based in export-processing zones, utilizing duty-free imports of intermediate textile goods for further processing. In the course of industrial development, many developing countries succeeded in establishing increasingly vertically integrated textile-clothing complexes, which in advanced stages became net-exporters. Yet, this general, historical pattern does neither fully reflect the experience of every individual developing country nor can its persistence be automatically assumed in the future. Some qualifications need to be made in this regard. Only a few countries fully completed import-substitution of textile products and even managed to achieve a trade surplus for such products (downward sloping dashed extension of line (3) indicating the ratio of textile imports over exports in graph 1). The fact that the majority of developing countries continues to be net-importers of textile goods reflects on the one hand the difficulties to advance from a garment-export-led growth pattern (with parallel imports of textiles) to an integrated development of textile-clothing complexes. In fact, in recent years in some developing countries such as the Philippines, Sri Lanka and Thailand, a trend-reversal can be observed in terms of an again growing dependence on textile imports (upward-sloping dashed extension of line (3) in phase IV). On the other hand, it also reflects the success of industrialized countries during the last decade in modernizing their textile industries in order to regain comparative advantages. This success was in many industrialized (and partly also advanced developing) countries, as will be further elaborated in chapter 2, the result of specific sectoral industrial policy programmes. These policies aimed at modernizing the textile industries of the respective countries and adjusting their product-mix to new market requirements in order to regain or secure new and sound long-term comparative advantages.

1.3 Changes of the industry structure: concentration and internationalization

Significant structural changes in the textile and clothing industries are not limited to the international level, but can be also observed within individual countries. Until recently, the textile and clothing industries in most countries have been characterized by a large number of small and medium-sized firms, often family-owned. As a consequence of small plants and low barriers to the entry for new producers, levels of industrial concentration have generally been below the average for most manufacturing industries. In the United Kingdom, for instance, the largest 100 clothing firms accounted for about 9 per cent of output in 1973 versus 40 per cent in all manufacturing. In the Federal Republic of Germany, the largest three firms accounted for less than 5 per cent of output compared to 25 per cent for all industrial activities. In Japan, the same characteristics prevailed with the 5 largest clothing firms representing less than 20 per cent of output as opposed to 50 per cent for all manufacturing.^{1/}

^{1/} Jose de la Torre, Clothing-industry Adjustment in Developed Countries, Thames Essay No.38 (London: Trade Policy Research Centre, 1985), pp.85-86.

During the last decades, however, a trend towards oligopolistic market structures became visible, particularly in the production of man-made fibres (MMF). MMF producers are typically divisions of large multinational, multiproduct firms, with sizeable financial, technical and managerial resources. MMF production involves the smallest number of firms and enjoys the largest economies of scale of all the segments of the textile complex. It is the most capital-intensive and usually most efficient one of the major segments of the textile complex. These characteristics dissipate rapidly in downstream-moving segments which are characterized by greater numbers of firms, less economies of scale, less production efficiency, greater labour intensity, and more intense international competition. Due to these structural differences, MMF producers have considerable market power vis-à-vis individual textile companies in terms of product types, product quality and price. This holds particularly for foreign subsidiaries in developing countries, which are sheltered from external competition through import barriers.

Only about 50 countries have MMF production. Table 4 shows the share of world production of non-cellulosic MMF claimed by each of the six major world regions. The two world leaders in production, the United States and Japan, are shown as separate entries. Of the 14 MMF-producing countries in Western Europe, the largest are the Federal Republic of Germany and Italy. Eastern Europe's eight MMF-producing nations include the U.S.S.R., which is the production leader for the group. Mexico and Brazil are the largest producers of man-made fibres within the 12-nation "Other Americas" category. The world region designated as "All Other" includes Asia, Africa, and Oceania. There are approximately a dozen Asian MMF producers, while Africa and Oceania have about four each. The Republic of Korea and the Province of Taiwan are the major producers in this region category.

The impact of the geographical concentration of the MMF industry on the relative bargaining strength of the more widely dispersed textile and clothing industries is compounded by the high degree of concentration and specialization of MMF companies. Table 5 lists the major European, Japanese, and United States MMF producing companies and their major fibre strengths. The high degree of internationalization of the industry and the resulting relative dependency of regions of the world on many of these companies is presented in Table 6 which provides data on the localization of the man-made fibre production capacity of 20 of the world's largest MMF producer firms. The European producers have the largest percentage outside their region (32 per cent), followed by the United States firms (12 per cent). The Japanese production capacity, by contrast, is almost exclusively located in the Far East region (95 per cent).

A key factor influencing the competitiveness of national textile complexes is the degree of vertical integration. In the case of MMF production, backward integration involves the processing of a company's own chemical raw materials, whereas forward integration denotes a MMF company's uses of own fibres in the production of textiles. Forward integration can also include additional downstream activities, such as the manufacture of clothing and its distribution. The integration strategies used by MMF producers are indicated in Table 5. In Western Europe, all but one of the MMF firms employ mostly backward integration strategies. The same pattern generally holds for the U.S. firms. The Japanese companies, by contrast, are more prone to use international forward and/or backward integration strategies. For example, one of Japan's largest fibre companies, Toray Industries, wholly or partially owns numerous textile and clothing companies throughout Southeast Asia.

Table 4. Production shares of major noncellulosic man-made fibres
by geographic region, 1973 - 1987

(Percentage)

Region	Acrylic + modacrylic				Nylon + aramid				Polyester				Total			
	1973	1981	1985	1987 _{a/}	1973	1981	1985	1987 _{a/}	1973	1981	1985	1987 _{a/}	1973	1981	1985	1987 _{a/}
Western Europe	41	41	38	35	31	24	20	24	27	18	14	13	31	24	20	18
Eastern Europe	9	9	11	13	9	15	18	22	6	9	10	11	8	11	12	13
United States	22	15	12	10	36	32	31	39	41	32	23	21	35	28	23	21
Other Americas	3	5	6	7	7	8	7	12	7	8	7	7	6	7	7	8
Japan	21	16	15	15	12	9	9	10	13	11	10	9	15	12	11	10
All Other	4	14	18	20	5	12	14	22	6	22	36	40	5	18	27	30
TOTAL _{b/}	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100

Source: Calculated from Textile Organon, various issues.

a/ Estimated capacity.

b/ Totals may not add due to rounding.

Table 5. Major fibre strengths of leading MMF producers

Company	Major fibre strength	Backward integration	Forward integration
Western European producers:			
	Polyester	Yes	No
Hoechst	Polyester	Yes	No
Courtaulds	Acrylic	No	Yes
Bayer	Acrylic	Yes	No
ICI	Polyester	Yes	No
	Nylon	Yes	No
Enka	Polyester	No	No
	Nylon	No	No
Rhone-Poulenc	Polyester	Yes	No
	Nylon	Yes	No
Montefibre	Polyester	Yes	No
Anic	Acrylic	Yes	No
Snia	Nylon	Yes	No
United States Producers:			
	Polyester	Yes	No
	Nylon	Yes	No
	Acrylic	Yes	No
Celanese	Polyester	No	No
Eastman	Polyester	Yes	No
Hoechst	Polyester	No	No
Allied	Nylon	Yes	No
Monsanto	Nylon	Yes	No
	Acrylic	Yes	No
Badische	Nylon	Yes	Yes
	Acrylic	No	Yes
Akzona	Nylon	No	No
American Cyanamid	Acrylic	Yes	No
Japanese producers:			
	Polyester	Yes	Yes
	Nylon	Yes	Yes
Teijin	Polyester	Yes	Yes
Asani	Acrylic	Yes	No
	Nylon	Yes	No
Toyobo	Polyester	No	Yes
	Acrylic	No	Yes
Kuraray	Polyester	No	Yes
Unitika	Nylon	No	Yes
Kanebo	Polyester	No	Yes

Source: "Global Strategies for Man-made Fibres in the Eighties", Decision Resources, Arthur D. Little, Inc., Cambridge, May 1982.

Table 6. Location of the world's man-made fibres capacity by individual companies, 1983

(in thousands of metric tons)

	North America	Latin America	Western Europe	Far East	Eastern Europe	Others	Total
DuPont	1,534	68	112	-	-	-	1,714
Celanese	640	226	-	-	-	-	886
AKSO	156	130	276	4	-	10	576
Toray	-	-	-	575	-	-	575
Hoechst	234	11	260	-	-	18	523
Teijin	-	5	17	449	-	-	471
Rhone-Poulenc	-	113	310	25	-	-	448
Monsanto	399	-	-	-	-	-	399
ICI	-	-	290	30	-	53	373
Allied	278	-	-	-	-	-	278
Montefibre	-	-	268	-	-	-	268
Eastman	258	-	-	-	-	-	258
Asahi	-	-	18	226	-	-	244
Bayer	-	27	185	-	-	12	224
SNIA	-	37	174	-	-	-	211
ANIC	-	-	204	-	-	-	204
Courtaulds	5	-	168	-	-	-	173
Badische	131	-	-	-	-	-	131
Mitsubishi	-	12	23	87	-	-	122
Toyobo	-	-	-	108	-	-	108
All Others	170	322	256	2,623	1,699	372	5,442
TOTAL	<u>3,805</u>	<u>951</u>	<u>2,561</u>	<u>4,127</u>	<u>1,699</u>	<u>465</u>	<u>13,608</u>

Source: Previously unpublished estimates by Monsanto, July 1983, reported in David A. Ricks, Jeffrey S. Arpan, J. Carl Clamp, Herbert H. Hand, and Brian Toyne, The United States Man-made Fibres Industry: Global Challenges and Strategies for the Future, University of South Carolina Press, Columbia, S.C., 1984.

Forward integration provides to MMF producers considerable competitive advantages over more fragmented and independent arrangements. The fibre company is directly linked to the market, and its R & D activities benefit from the company's first-hand knowledge of fashion trends and changing fibre preferences of the market.^{1/} Demand is more stable since it is spread over many markets, leading to economies of scale in the production of fibres, textiles, and clothing. Specific country quotas imposed by importing countries can be more easily circumvented by shifting production from one country to another as the quotas for a particular country are filled.

Internationalization and concentration trends are also evident, although to a lesser degree in the textile industry. Unlike in the case of MMF production, however, this does not involve substantial foreign direct investments, except in the cases of the Republic of Korea and Japan. Instead, internationalization trends appear through the substantial shifts that have occurred in the international division of production, the development of international linkages by European, Japanese, and United States trading companies, and the industrial adjustments being undertaken by national industries, and promoted by their governments. Technological progress has resulted in the integration of spinning and weaving activities into large-scale plants, substantial increases in capital-intensity, labour productivity and productive flexibility, and substantial improvements in product quality (defect-free output, texturing, fibre blends, and so on). The rapidly mounting costs associated with modernizing textile plants and the textile production process are placing severe burdens on small and medium-sized firms with limited financial resources, unless public funds are made available to support such investments. Corresponding government-led programmes to rationalize the production of fibres, textiles and clothing in a number of countries and groups of countries also had the net effect of a gradual increase in the level of industrial concentration, primarily in textiles.

Concentration pressures have not been as strong in clothing. While technological change has been relatively rapid in cutting and pressing, it has been considerably slower in sewing, the labour-intensive nucleus of this particular segment of the textile complex. Yet, recent technological advances indicate that the production of clothing might undergo sweeping technological and, consequently, structural changes, similar to past developments in textiles production. Further pressure towards rationalization and concentration may result from the high specialization ratios of the industry in many countries. Clothing firms specialized almost exclusively in a particular clothing category are highly vulnerable to changes in the operations. One response given to this by some successful, growth-oriented U.S. clothing companies was the adoption of a "spoke-and-wheel" concept to balance economies of scale in production, distribution, and inventory costs.^{2/} Several optimal sized manufacturing plants were linked by means of a relatively large, geographically centralized distribution warehouse and administrative offices. The warehouse and offices were often located in some large urban area, and the plants were located in rural settings where labour was relatively inexpensive. These companies benefited from the lower wages,

^{1/} This integration strategy contributes to the continued strength of the Japanese producers of fibres and fabrics.

^{2/} For the main results of this study, see Jose de la Torre, M.J. Jedel, J.S. Arpan, E. Ogram and B. Toyne, Corporate Response to Import Competition in the U.S. Apparel Industry, Research Monograph N.74 (Atlanta, Georgia: Georgia State University, 1978).

economical plant sizes, and economies of centralization in those activities that were common to all plant operations. The same concept is also being used by Japanese and Korean firms, with the major difference that the plants are located in other, relatively low-wage countries.

1.4 Challenges facing developing countries

The world-wide textile and clothing industries have experienced considerable change in the last three decades. These changes are anticipated to continue and thus will constitute binding parameters for the plans of governments to develop, revitalize and/or restructure their industries. They can be summarized as follows:

1. Demand for textiles and clothing is growing in the industrialized countries at a rate below the average demand increase associated with rising income per capita. Consequently, the share of clothing expenditure in total consumption is higher at low income levels and has been falling significantly in almost all developed countries. Adding to this the persisting high differentials in population growth rates between developed and developing countries it can be concluded that the main growth markets for clothing in the future will be in the developing countries, and, to a lesser extent in the centrally planned economies. As the markets of both groups of countries should be realistically expected to remain highly protected in the foreseeable future, the scope to earn foreign exchange through textiles and clothing exports will be limited to a significant extent to the slowly growing markets of the industrialized countries. Therefore, the potential of internal markets in developing countries constitutes a source of growth which developing countries' textile industries will have to increasingly rely on in the future.
2. This conclusion, which is based on demand considerations, is supported by current trends on the supply side. As national complexes and individual competitors increase their efforts to gain market shares on a global scale, or to protect their domestic markets, the nature, degree, and complexity of competition within the global textile complex have increased substantially and can be expected to intensify in the future. More and more developing countries have successfully completed the transition from overall trade "deficit phases" to trade "surplus phases" of their textile-clothing complexes. The process of "graduation", however, as outlined in section 1.3 seems to have reached a critical stage, as more and more developing countries are "clustering" in the "surplus stage" of the development of their textile and clothing industries. This has been supported by the selective protection provided to the clothing industries of the developed countries. The establishment of country-specific quotas favouring less advanced developing countries has accelerated the development of even lower-cost clothing industries in such countries. Countries such as Japan, Hong Kong and the Republic of Korea have sought to circumvent these quotas by establishing clothing facilities in these countries. Also, the industries of several of the developed countries, notably the Federal Republic of Germany and the Netherlands, have sought sub-contracting arrangements with clothing manufacturers in low-cost countries in Eastern Europe, in order to remain competitive in their domestic markets.
3. Many developing countries "cluster" in surplus phase IVa, in which net clothing exports overcompensate a deficit of trade in textiles. Yet, these persisting deficits in textile trade indicate the growing difficulties of developing countries to establish fully integrated

textile-clothing complexes. These difficulties reflect successful restructuring efforts of textile industries in industrialized countries, the lack of corresponding programmes in most developing countries and the difficulties of "newcomers" to proceed from garment exports utilizing imported intermediate products (often in Export Processing Zones) to integrated textile-clothing development. The latter set of problems includes factors such as the existence of well established distribution and trade channels between industrialized countries and the main exporters of textiles and clothing among developing countries; consumption and fashion styles in developing countries which are adapted to patterns of industrialized countries; and the high cost of intermediate inputs, given the market power of foreign suppliers and existing trade regimes in developing countries.

4. In the world-wide textile-clothing complex national industries are specializing in those segments in which they enjoy comparative advantages (e.g. man-made fibres, textiles, or clothing, and within these major sectors, specialization in particular types of fibres, fabrics, and clothing). The international markets for textiles are increasingly being divided into two distinct segments: undifferentiated (commodity-type fabrics and yarns) and differentiated (specialty-type fabrics and yarns). The first market is for basic yarns and fabrics which can best be satisfied with long production runs. Among industrialized countries, the United States' textile industry is currently the most efficient industry in the production of these types of fabrics. However, it is dependent on a high-cost clothing industry which is unable to compete internationally in the low-price, high-volume end of the market. The comparative advantage for this type of textile market is with the new emerging textile industries in developing countries, provided they are linked to strong export-oriented clothing industries which have large pools of low-wage labour, make use of modern production techniques and technology, and produce the quality of clothing demanded by the markets of the developed countries. Particularly textile producers in advanced developing countries are therefore directly competing with US manufacturers.

The second market is for specialized yarns and fabrics. It has grown substantially in the last twenty years, and is the combined result of textile firms seeking to become dominant in specific market segments, and the growing sophistication of clothing markets in developed countries. Consequently, particularly textile industries in West European countries have targeted their modernization and restructuring efforts into this direction. The introduction of new, flexible machinery allows these companies to react quickly on changing demand requirements in high-fashion markets and to produce even small lots cost-efficiently. Access to the more affluent markets, close links to man-made fibre firms, the domination of advanced fabric forming and finishing technologies, experience in marketing on a global scale and, last but not least, close links to manufacturers of textile machinery support these newly established comparative advantages of West European textile manufacturers. In fact, developing countries hardly appear to be competing with European producers in these new product lines and market segments, and reportedly EC Governments took a considerably more liberal stand during the MFA IV negotiations than the US administration.

5. Traditional models such as "Heckscher-Ohlin", explaining changing comparative advantages with evolutionary changes of relative factor endowments in the course of development ^{1/}, have only limited analytical value in explaining observable trends. Instead, the international textile-clothing system is advancing from "man-made fibres" to "man-made comparative advantages". This relates both to changes in the structure of the industry producing man-made fibres and chemical inputs which tend to increase the market power of this industry, and to the growing impact of government intervention on comparative advantages. In fact, key elements determining future comparative advantages in textiles and clothing production are highly susceptible to policy action, such as access to new technologies and support to their dissemination in order to increase the flexibility of production, access to necessary inputs (e.g., oil and gas in the case of man-made fibres, man-made fibres and chemical inputs in the case of textiles, and fabrics in the case of clothing), access to sufficiently large markets to gain economies of scale, and rules affecting labour costs and labour productivity. Although technological innovation, primarily in the textile sector, but also in the design and cutting segment of the clothing sector, is in principle available to all countries, it is placing increasing financial and training burdens on individual firms. Concomitant with the intensification of competition for market shares, and thus the need to develop new skills in marketing and management, firms are more and more burdened with the need to find additional financing for the purchase of increasingly expensive plant and equipment and the training of their production workers in the use of this equipment.

6. In the past, the development of textile-clothing complexes was in most countries sequential and backward (i.e., first the development of a clothing industry, utilizing imported intermediate products, then the development of a textile industry, and finally the development of a man-made fibre industry), and part of an industrialization programme. Yet, as was shown utilizing trade ratios, this pattern does not necessarily need to persist in the future. Many developing countries did not manage to complete textile import substitution or even to become net textile exporters. In some countries, even a renewed dependance on textile imports can be observed to support exports of garments. The experiences of the Republic of Korea and the Province of Taiwan suggest that the textile complexes of relatively advanced Third World countries will eventually lose most of their international advantage in the production of undifferentiated textiles and clothing to moving-up, less advanced developing countries. Whether comparative advantage in textiles and clothing production will be ultimately lost will depend on these countries' ability to finance and support the development of advanced and more flexible textile industries, and their ability to learn the manufacturing and marketing techniques of these industries.

^{1/} According to this view, developing countries would "accumulate" relatively more capital than labour, which would confer upon them new comparative advantages in more capital-intensive production lines.

2. Textile policies of developing countries: industrial expansion and modernization

During the last two decades the developing countries have taken an active part in promoting their textile and clothing industries. The main objective of these textile policies was to promote the expansion of relatively young industries and to strengthen their comparative advantages, although the impact of the international recession in the early 1980s forced many governments to shift emphasis on the consolidation and short-term survival of the industry. In some developing countries, however, the Government took on a leading role and initiated structural adjustment programmes in order to support the industry to establish a new, sound basis for growth within the changed set of international parameters. In the following, an overview is presented of the various policy incentives used by developing countries in order to promote their textile and clothing industries.

2.1 Protection of domestic markets

Compared to the industrialized countries, which exempt each other from quota restrictions ^{1/}, considerably higher tariffs are levied by most developing countries on imports of textiles (yarns and fabrics) and clothing, with tariff rates ranging between 20 per cent and 100 per cent.^{2/} The lower tariffs are for fibres and yarns, the higher tariffs are for fabrics and clothing. For example, the tariffs levied by Pakistan are 65 per cent on yarns, 130 per cent on fabrics, and 160 per cent on clothing. The tariffs levied by the Republic of Korea are 20, 35, and 40 per cent, respectively.

In addition, most developing countries have other import restrictions, such as import license requirements, import prohibitions, and other non-tariff and non-quantitative trade restrictions, such as cash deposits on imports, price controls, and origin marking requirements. For example, the Republic of Korea requires a 20 per cent cash deposit against all textile and clothing imports, and has established a system of quotas. Imports of textiles must also have the approval of a textile-import supervisory board. Other countries, such as Brazil, Peru, India and Thailand, prohibit the importation of certain textiles and clothing items.

These tariffs and trade restrictions virtually "close" textile and garments markets of many developing countries to foreign competition, thus providing local producers the opportunity to subsidize foreign sales with high domestic contributions. The greater role of protection in the policy framework of developing countries compared to developed countries corresponds to the different policy objectives of developing countries, i.e. to establish and expand their young industries. In addition, the high profits generated on domestic sales are used to off-set the lower profit margins obtained from exports sales. There are, however, serious drawbacks to the use of this approach, unless offsetting policies are introduced. In particular, exports are being discriminated, as non-exporting textile and clothing companies have

^{1/} Textile and clothing trade between industrialized countries is, however, subject to tariff restrictions. The weighted average tariff for textiles and clothing in OECD countries is generally high (19.0 per cent in the United States, 11.5 per cent in Europe, 11.5 per cent in Japan, 21.5 per cent in Canada and Australia) when compared to the tariffs levied for other manufactured products.

^{2/} The only exception is the free-port of Hong Kong.

a profit advantage over companies which use their "closed market" profits to subsidize exports. In addition, unless protection is used in combination with an active industrial policy aiming at modernizing and restructuring the industry, it may result in an inefficient industry comprised of a large number of marginal companies. "Closure" of the market also encourages contraband, especially if the local products are not comparable to foreign-made products (in terms of fashion, design, quality and fabric assortment).

2.2 Sectoral aid measures

Three types of sectoral aid measures were used by one or more of the countries covered in table 7: (1) subsidies granted to assist in the modernization of the targeted industries; (2) subsidies granted to effectively reduce the costs of needed inputs; and (3) creation of state-owned job-preservation holding companies.

Modernization assistance. Textile and clothing-specific subsidy programmes for the modernization of textile and clothing segments of a particular industry are common, also among developing countries. Of the nine countries listed in table 7, six provided subsidies for modernization (India, Pakistan, Philippines, the Republic of Korea, the Province of Taiwan and Tunisia). In most of the cases, these subsidies involved the provision of credits for the purchase of new machinery.

For example, as part of its 1982-1986 economic development plan, the Republic of Korea, provided the textile industry a modernization fund totalling US \$36.4 million (30 billion won). These funds were to be used to replace obsolete machinery, particularly spinning machines, with new equipment. To encourage companies to modernize their textile machinery, the Korean Government provided 8-year textile machinery loans at an interest rate of 8 per cent.

The Philippines is using several measures to encourage the modernization of its textile and clothing industries. These include subsidized capitalization arrangements, special regulations for the procurement of foreign exchange, and loans from the State Development Bank. World Bank loans totalling US \$150 million are being used to finance modernization projects of the textile and clothing industry at very favourable terms. Companies participating in approved projects need only contribute 25 per cent of the necessary investment. Export-oriented firms are allowed to retain part of their export earnings for the purchase of imported equipment and raw materials. Finally, the State Development Bank provides loans to labour-intensive small and medium-sized firms, of which 14 per cent of the total have been granted to textile and clothing companies.

The modernization measures provided by the other countries, India, Pakistan, the Province of Taiwan and Tunisia, are similar to those described above. In general, they involve direct participation by the Government in the financing of modernization projects provided viable long-term jobs are created, new equipment is purchased, and/or the project is export-oriented. In some cases, such as India, capacity expansion projects are also subsidized by the Government.

Subsidies for purchase of inputs. The Governments of Pakistan and Thailand provide subsidies for the purchase of raw materials. In the case of Pakistan, the Government is directly involved. It provides credits which

Table 7. Sectoral aids favouring the textile and clothing industries of nine developing countries, 1983/84

Type of Aid	Brazil	Hong Kong	India	Pakistan	Philippines
Modernization and diversification subsidies			Cotton textile industry - 10 year fund established. Select number of state-owned firms to receive increased financial support UN development loans for specific regional clothing firms.	No information	Modernization of textile industry financed partly by World Bank. Firms need contribute 25% of needed capital. Funds were also available for clothing industry, and expansion of exports.
Export promotion			Promotion measures favouring 100% export textile firms.	Export promotion - export-oriented firms granted a complete exemption from customs on imports of raw materials. Duty-free imports of plant and equipment for textile and clothing firms.	Export credits and export capital made available. Also receive an interest rebate of two percentage points below normal market rates.
Other export promotion measures			State-holding company for the absorption of non-viable firms - 130 cotton weaving firms currently kept from bankruptcy.	State-holding company for the absorption of non-viable firms - non-competitive firms are kept from bankruptcy. Price-reductions for the purchase of cotton	Preferential access to foreign exchange - gains from exports normally turned over to Central Bank can be used to repay credits for imports of machines, raw materials, etc. Textile firms also get preferential treatment in foreign exchange sector.

Table 7 cont.

Type of Aid	South Korea	Taiwan	Thailand	Tunisia
Modernization and diversification subsidies	Modernization fund - replacement loans (8 years, 3 years free from redemption, 8%) Diversification fund - emphasis on product quality, printing process, and expansion of exports.	Renovation program - offer better conditions for amalgamation of firms, make available long term financing for replacement of obsolete equipment, introduce new technologies for textile production, establish a large modern production unit for dyeing and printing	Promotion program for small and medium-sized firms - Financial assistance provided small and medium-sized firms, particularly in weaving and knitting industries	State aid for the creation of permanent places of employment - Regional employment incentives, World Bank loans - In 1981 loans amounting to US\$ 18.6 made available to select textile firms for modernization
Export promotion	No information	No information	Export credits - favorable loans up to 3 years at 6% available. Alternatively banks discount payable exports at 7%. Financing of export-oriented imports - banks obliged to offer loans 1.5% market rate.	No information
Other export promotion measures	No information	No information	Financing of raw materials - Domestic textile firms offered a rediscount of commercial bank loans at interest rate of 6% for 14-90% of amount for raw materials. Interest subsidies - at standard interest rate of 14.5%	Exemption from social charges - 100% exemption given firms meeting requirements. Reduced to zero over a 4-6 year period.

Table 7 cont.

Type of Aid	Brazil	Hong Kong	India	Pakistan	Philippines
Tax-based promotion of investments	Income tax exemptions Sales tax exemptions Tariff exemptions on purchases for production Trebling of depreciation rates - multiple shift bonuses	No special measures. Favorable tax framework - no capital gains tax, unlimited carry-forward of losses, no dividend tax, favorable depreciation regulations.	10% depreciation allowance in year of purchase of select capital goods. 50% immediate write-off possible for textile and clothing machines. 8-year carry-forward of losses. Tax-free allowance in earnings tax for up to 25% of capital goods. Companies can deduct a percentage of capital stock from taxable income for 5-years. Firms can deduct 20% of income tax or 25% of corporate tax for 8-year period if established between 1901-85.	Reduction of import duties for machines and tangible assets. Exemption from income tax till 1988 for newly established clothing firms. 5-year tax exemption in development areas. Also other regional development incentives.	Tax holidays, carry-forward loss privileges, and tax-free allowances for certain firms and machines and parts. Also 50% duty exemption on imported equipment and parts. Export intensity is a major criterion for eligibility.
Tax-based promotion of exports	Tax reductions on the basis of the proportion of total turnover/export turnover Export trading companies can deduct difference between domestic prices and f.o.b.-value from taxable profits Allocation of a tax credit to exporter in an amount of the turnover tax rate Preferential treatment for the import of export-oriented goods	No information	Expenditures in favor of exports - earnings tax allowance at a rate of 135% 5% of export proceeds can be deducted from taxable income. Tax exemptions in export-oriented free zones (5 years on earnings, no import charges, domestic supplies count as exports, no sales tax). Reimbursement of paid domestic indirect taxes. Refunding of import charges for export-oriented primary products.	Exemption from import charges for goods required for export. Deductions of 55% of export proceeds from taxable income. Export-processing zone exempt from income taxes for at least 5 years. Reimbursement of duties and indirect taxes in accordance with standard rates.	5-10% tax-free allowance in earnings tax from total profits or export proceeds for 5-10 years. Tax-free allowances in earnings tax for paid customs duties and import charges. Doubling of normal depreciation rates. Complete exemption from taxes in export-oriented free trade zones. Doubling of freight costs and additional deductions associated with wages and material expenses up to 25% of export proceeds

Type of Aid	South Korea	Taiwan	Thailand	Tunisia
Tax-based promotion of investments	Special incentives for small and medium-sized firms - tax-free investment allowances and quicker depreciation rates. Also other tax provisions, such as tax holidays, etc. Provisions depend on whether firms are free of foreign share or not. Also, export intensity a major criterion.	Tax exemptions and depreciation allowances given firms meeting special requirements. Includes expansion plans, replacement plans. Also custom-free import of machines.	Exempt from profit tax 3-8 years. 5-year carry-forward of losses. Quicker depreciation rates. 5-year tax exemption on licenses, concessions, etc. Doubling of deductible expenses for transport and energy supplies. Exemption or halving of import charges for machines, etc. required for production. Depends on zone and type of company.	
Tax-based promotion of exports	Tax-free reserves to the extent of 1% of export turnover in convertible currency for export losses. Tax-free reserves for the development of foreign markets to the amount of 1% export turnover in convertible currency. Tax-free reserves for up to 5% of export turnover for the compensation of price variations in exports. Tax-free allowance for a rate of 30% of the depreciation value insofar as export proceeds exceed 50% of taxable income.	No trade tax for the export share of total turnover. Tax-free reserves to the amount of 1% of the previous year's export turnover. Tax-free reserves for a rate of 7% of the purchase costs of foreign machines in case of foreign exchange losses. Reimbursement of import duties paid for goods required for re-export.	Tax-free allowance in earnings tax for 5% of the annual increase of export earnings. Exemptions from import charges for goods required in connection with exports. Exemption from export duties and turnover tax.	Exemption from trade income tax. Reduced taxes for 10 year period. Exempt from rental tax for 20 years (10%) Exempt from import charges for 20 years for goods required for production for export. No turnover tax for a period of 20 years for the procurement of domestic goods required for production. Above tax privileges are maximums and are lower for less export intensive firms.

Source: "Competition Conditions and Distortions of Competition in World Textile Trade," Tables IV and V (Frankfurt am Main: The Central Confederation of the Textile Industry in the F.R. Germany, 1985).

effectively reduce the costs of imported raw materials, specifically cotton. In the case of Thailand, the assistance is indirect. The Government rediscounts commercial bank loans with an interest rate of 6 per cent and covers from 14 to 90 per cent of the amount required for the purchase of raw materials.

Job-preservation assistance. India and Pakistan have created state-supported holding companies to "absorb" uncompetitive companies in order to preserve jobs. For example, it has been estimated that the Indian Government has had to absorb about 130 uncompetitive cotton-weaving firms (or 21.7 per cent of the country's 600 large firms). Specifically, these holding companies insure employment maintenance for the affected workers.

By providing shelter for the existence of internationally inefficient companies in order to safeguard employment, India and Pakistan are following the job-preservation strategies of France, Italy, and the United Kingdom during the 1970s. In the latter three cases, the strategies resulted in declining international competitiveness and the creation of a dualistic structure, characterized by the co-existence of an effective private sector and an ineffective public sector. In general, this approach discriminates against those companies which do attempt to become internationally competitive. They must not only compete with highly competitive companies in foreign markets, but with heavily subsidized public companies in their domestic markets. In most cases, both in the developed and developing countries, a more effective policy approach to maintain employment has been one geared to the replacement of antiquated capacity with modern, internationally competitive capacity coupled with an aggressive marketing to expand exports (the strategies currently being pursued by countries such as the Republic of Korea, Spain, and the Province of Taiwan).

2.3 Tax-based incentives

In general, two types of tax-based incentives can be provided. Both types have been used by the nine countries listed in table 7. The first provides profit or earnings tax relief, frequently through permitting exclusions in the determination of taxable income. This incentive strengthens the capital stock formation of those companies which operate at a profit. It may therefore not have an impact on all companies which constitute the target of a restructuring programme.^{1/}

The second policy instrument is the manipulation of cost-related taxes levied on imports or exports. Exported products are relieved from cost-related taxes by appropriate compensatory measures. This may be done by deducting the actual amounts of specific taxes, by deducting one "lump-sum" percentage from the final product price, or by deducting various "lump-sum" percentages according to established product priorities.

One or both of these tax-based subsidy measures are used by many developed countries to stimulate investments (e.g., U.S. investment tax credit), exports (e.g., Europe's tax-rebate on exports), or both. The nine developing countries included in Table 7 are no exception. They provide a wide range of tax-based investment and export promotion incentives, which frequently are textile and/or clothing industry-specific. The investment incentives include partial or complete exemption from profit taxes for a particular period of time, generally four to ten years, or a reduction of the

^{1/} The issue of which enterprises should constitute the target group will be discussed in more detail in section 4.1.

basis of assessment for profit tax by means of tax-free allowances and the raising of the depreciation rates. In addition, tax-free contingency reserves and allowances which reduce profit taxes are used to stimulate exports.

Cost-reducing tax measures include tariff exemptions or reductions for imported machinery, material inputs, and auxiliary materials and semi-finished products, and the reimbursement of indirect domestic taxes in cases of exports. In some cases, sales and excise taxes are also eliminated. It has been estimated that in the cases of India, Thailand and the Philippines the refunding of indirect taxes is greater than the original taxation.^{1/}

Of the countries considered in table 7, Hong Kong, the Republic of Korea, the Province of Taiwan, Brazil and Turkey do not provide textile-industry-specific tax measures, whereas Thailand, India, Pakistan and the Philippines do provide tax measures to specifically encourage their textile and clothing industries. In the case of Hong Kong, tax-based investment or export promotion measures do not exist. However, the tax structure in Hong Kong encourages business: Hong Kong has the lowest business tax in the Far East, no capital gains tax, no taxation of dividends, and favourable depreciation regulations.

In the cases of the Republic of Korea, the Province of Taiwan, Brazil and Turkey, tax-based incentives are provided which are either of a general nature and apply to all industries, or are specific and apply only to targeted industries, such as those designated as "key industries" by the Republic of Korea and "strategic industrial branches" by the Province of Taiwan. Although the textile and clothing industries of these four countries have not been included in these latter categories, the tax-based measures provided to all industries can be quite significant.

For example, the Republic of Korea provides small and medium-sized firms (700 or less employees) investment tax allowances of up to 15 per cent of fixed assets, and a 50 per cent increase in the normal depreciation rates. Since many textile and clothing firms fall within the small or medium-sized firm category, firms within these industries can benefit directly. They also benefit from the general tax-based export promotion measures which include three tax-free contingency reserves, and a special depreciation allowance. The contingency funds are to cover export losses (1 per cent of turnover), development of foreign markets (1 per cent of export turnover in convertible currency), and to cover price fluctuations (5 per cent of export turnover). The special depreciation allowance (tax-free allowance of 30 per cent of the normal depreciation rate) is provided when 50 per cent of taxable income is derived from exports.

The Province of Taiwan also provides general investment and export promotion tax-based measures. For example, for capacity expansion investments, companies receive a four-year tax exemption (or a special depreciation allowance). Also, exports are encouraged by providing for tax-exempt contingency funds, the reimbursement of customs duties, and the reduction of taxes on export-generated income (a 2 per cent reduction of taxable income of exporting companies, but not to exceed 25 per cent of export proceeds). Finally, firms operating in export-processing zones receive a five-year tax exemption, do not pay sales or excise taxes, and are exempt from customs duties and import charges for machinery and raw materials required for production.

^{1/} Transnational Corporations in the Man-made Fibres, Textile and Clothing Industries. United Nations Centre on Transnational Corporations, preliminary draft, 1986, p.178.

In general, tax incentives have proven to be successful in combination with other types of measures. The Republic of Korea, whose textile policies will be reviewed in more detail in chapter 2.5, was successful in encouraging its textile and clothing companies to become export-oriented through the careful weighing and application of tariffs, general tax allowances and branch-specific modernization assistance.

2.4 Auxiliary services

Until recently, auxiliary services generally referred to research and development activities associated with the development of new textile and clothing products, such as new fibres, new fibre blends, and new manufacturing processes and techniques to improve on productivity, product quality, etc. Today, however, the term also refers to the development of market and marketing-related activities and links, such as the development of international contacts with subcontractors and buyer groups, licensing, fashion and design, domestic and foreign market studies, and training programmes.

In the past, most government and industry attention and effort focused on the production aspects of producing fabrics, threads and clothing. Today, it is increasingly apparent that fashion, design and fabric combinations are as important as price and product quality. Belgium and Spain, which will be discussed as case studies in chapter 3, are good examples of developed countries which have explicitly incorporated these aspects into their textile plans. Yet, also developing, and particularly advanced developing countries are increasingly paying attention to these aspects. One example is the Republic of Korea, whose restructuring programme will be analysed in more detail in the following section. All three countries have included in their textile and clothing restructuring plans programmes designed to stimulate (1) fashion and design activities, (2) market and marketing services, and (3) country and brand image promotion activities. They have also created non-profit institutions to administer their restructuring programmes, as well as centres for research and development, commercial activities, and production and management training.

2.5 Case study: the Republic of Korea 1/

Changes in the regulations governing international trade in textiles and clothing, the emergence of lower-cost textile and clothing industries in other Third World countries, and the success of their own industrialization programmes resulted in several of the advanced textile-exporting countries losing comparative advantage in certain product lines. The Republic of Korea is no exception.

The Korean textile and clothing exports increased fourfold between 1973 and 1980, while the People's Republic of China increased its textile exports 11 times and Thailand, Singapore and Malaysia saw their exports rise by 800 per cent in the same period. Wages in the ASEAN area and the People's Republic of China are expected to remain lower than in the Republic of Korea for some time to come, and modernization of industry is, therefore, a high-priority issue.

1/ This section is based on "The Textile Industry in the Republic of Korea: Problems and Prospects", prepared for UNIDO by Dr. Moon-Shin Hong, Director, Korea Institute for Economics and Technology, Seoul, February 1986.

2.5.1 Rationalization and modernization

In response to the new trading environment which had developed by the late 1970s, the Government sought new policy approaches and instruments to facilitate the required modernization of the industry. Key areas of this modernization effort are the amalgamation of numerous inefficient production units into larger, efficient ones to achieve economies of scale, redirection of investment towards the dyeing and finishing subsectors, increased replacement investment, and the introduction of more technology/capital-intensive production methods. In the past, the Republic of Korea's large-scale mass production has been tailored to the needs of major foreign wholesalers who buy in huge quantities. In the new industry structure large firms will concentrate on developing sophisticated yarns and fabrics requiring large investments; general trading companies will devote themselves to marketing; and small companies will assume the task of garment production. Yet, also garment-makers are investing heavily in labour-saving machines and equipment, such as automatic cutting machines, special-purpose sewing machines, automatic ironing devices and automatic fusing machines.

The policy framework under which the Government provides support to the restructuring of the textile industry is the Basic Modernization Plan for Textile Industries introduced in 1980, which is based on the "Law for the Modernization of the Textile Industries" (enacted in 1979). In this law, the Ministry of Trade and Industry was designated to play a key role in promoting the industry. A major source of financial support to the industry has been the Textile Industry Modernization Fund, which was endowed with a total of US \$36.4 million (30 billion won). Between 1981 and 1984, the Fund provided a total of US \$19.4 million (16 billion won) in loans to help companies modernize their textile plants. The fund draws its financial resources equally from private and government sectors. Textile companies can borrow at interest rates of 6 to 8 per cent from the Fund, with maturities ranging from 5 to 8 years.

In addition to this branch-specific fund, textile and clothing companies benefit from the Government's efforts to assist smaller companies through subsidized priority loans for modernization and through gradual changes of the export regime from export quotas to strategies favouring smaller enterprises. Small and medium enterprises of all industrial branches can borrow up to 300 million won at 9 per cent interest from the Small and Medium Business Promotion Fund, with repayment periods of up to 8 years (capital funds) and 3 years (operating funds). So far, a total of 16 billion won has been loaned to textile mills, accounting for 19 per cent of all the loans outstanding from the Fund. Textile companies also benefit from general tax benefits provided to industry through various tax incentive schemes, including tax exemptions or reductions (e.g., tax reductions on paid dividends and exemption of duties on imported raw materials); income tax deductions (e.g., on energy-saving and R & D investment); depreciation allowances (e.g., 20 per cent enhanced depreciation on machinery and 100 per cent write-off on energy-saving investment); and loss treatment of contingency funds (e.g., R & D failures and export losses).

2.5.2 Promotion of research and development

In the past, the Republic of Korea has been an exporter of low-quality textile products, and a concerted effort is being made to develop new and higher-value-added products, and to find new niches in the international textile market. The Republic of Korea is pursuing this effort through the promotion of R & D to support the move from high-volume production to high

value-added products. The Government supports through financial assistance research and development (R & D) activities undertaken by the textile companies, which amounted to US \$20.6 million (17 billion won) in loans between 1976 and 1983. The most active participants in R & D are the manufacturers of man-made fibres, focusing on fibres with properties similar to natural products like cotton, silk and wool. The major synthetic fibre producers for instance have developed yarns such as thick and thin yarn (TTY), high-elastic yarn, modified cross-section yarn, super-multi-yarn, moisture-absorbent filament and fine denier yarn.

2.5.3 Development of new designs and fashion

The Government and industry have started to cooperate to address the two weakest links in the industry's drive for higher value-added products, i.e. the dyeing and design industries. To upgrade the sector, the Ministry of Trade and Industry has induced dyers to move into industrial complexes established with Government funding. Presently, there are two industrial complexes for dyeing, housing 120 firms. Another complex is under construction in Pusan. Under the promotion plan, the Republic of Korea's dyeing technology is to reach the level of advanced countries by 1987.

Numerous plans and activities have been initiated to develop and improve the skills required to create better designs and fashions. Currently designers who have studied overseas are leading the industry. In contrast, Korean designers have an average of three years of on-the-job experience. In order to encourage a greater inflow of foreign fashions to the Republic of Korea with a view to stimulating domestic design activities, the Korean Government has revised several regulations in order to facilitate the introduction of foreign brands. Other activities include the opening of new design/fashion schools; establishment of sister relationships with foreign fashion schools; sponsoring of international fashion fairs; and increased participation in international fashion demonstrations.

2.5.4 Management of the external sector

Given the high degree of outward-orientation of the Korean economy, management of the external sector is a necessary policy priority. Key areas are to secure the supply of raw materials and to diversify export markets. The Korean textile industry depends heavily on imported materials such as raw cotton and wool, and imports 60 per cent of its chemical fibres, making the Republic of Korea's textile prices highly sensitive to world-price fluctuations. Several measures are currently being taken by the Government to secure a reliable and timely supply of textile raw materials. These include: providing financial assistance to importing raw materials (e.g., raw cotton); reducing import duties (e.g., wool); guaranteeing supply at the current world market price (e.g., chemical fibres); implementing measures designed to stabilize the prices of intermediate materials (e.g., purchase pool and inventory build-up); providing tax incentives (e.g., a reduced consumption tax on hand-made products and carpets).

Exports of the Korean textile industry are significantly concentrated on a small number of markets. For instance, the United States and Japan account for more than 40 per cent of total textile exports, making the industry particularly vulnerable to trade restrictions imposed by these countries. Therefore, Government and industry put emphasis on the development of new

markets. Industry is switching its marketing efforts to non-quota areas, such as the Middle East, South America, Africa and South East Asia. This diversification effort is complemented by the development and production of products not subject to import quotas (e.g., silk products), the initiation of joint-venture projects with non-quota countries, and by the direct participation of Korean textile companies in the distribution system of importing countries, through the opening-up of self-operated retail and wholesale stores. The Government provides a variety of supports for such overseas marketing activities by Korean textile companies. Finally, the system of export-quota allocation which gives priority to the filling of quotas for high-value-added items contributes to a corresponding diversification of the export basket.

2.5.5 Institutional framework

Under the "Law for the Modernization of the Textile Industries" the Korea Federation of Textile Industries (KOFOTI), a non-profit organization representing Korean textile industries domestically and internationally, acts as the principal statutory entity to carry out the modernization and development of the industries. To promote the modernization of Korean textile industries, KOFOTI operates the Fund for the Modernization of Textile Industries, to which the Government and textile industries jointly contribute. KOFOTI carries out the following major activities in connection with this fund:

- The structural improvement of Korean textile industries, through the presentation of long-term plans, promotion of the replacement of out-dated textile facilities, etc.
- Improvement of quality and diversification of textile products through the support of promotion of new textile materials development, development of design and fashion, fostering of the dyeing industry, etc.
- The development of textile technology, through the reinforcement of research and development activities, promotion of technology introduction, training of textile technicians, etc.
- Co-operation with KOFOTI's overseas counterparts by seeking the development of textile trade, dispatching textile missions abroad, receiving foreign textile missions in the Republic of Korea, holding and participating in international meetings, fairs, exhibitions, etc.
- Provision of services and information concerning domestic and international development of textile industries through various research activities, convening of seminars and lectures and other means.
- Communication to the Government of the integrated views of the industries on various issues, and of policy recommendations in the interests of the industries.

3. Textile policies of industrialized countries: Restructuring to meet low-cost competition

In response to emerging low-cost competition from developing countries, governments in developed countries have used a wide range of policy instruments in order to support the required process of industrial restructuring. This chapter provides an overview of these policies, with the main focus on industrial policies, leaving aside the complex framework of regulations governing international trade. Yet, trade policies will need to be occasionally referred to, as they constitute in most countries a supporting or limiting framework of industrial policies, and in some countries even substitute industrial policies.

3.1 Policy orientations and instruments ^{1/}

From the early 1950s until about 1970, public intervention in most European countries was confined to government support for industrial development programmes of a general nature, and to the conclusion of "orderly marketing arrangements" to control the level of imports first from Japan and later from the developing countries. Except for Japan, which was forced to reduce capacity in some of its most sensitive sectors, the period was one of general expansion. In addition, significant opportunities existed in other industries to absorb any employment losses occurring in declining sectors of the clothing industry.

Between 1970 and 1975, however, conditions changed drastically. Growth in the demand for textiles and clothing declined or stabilized, and at the same time the scope and intensity of import competition increased. To cope with this, governments of industrialized countries resorted to a wide range of industrial policy measures, varying according to the underlying basic political philosophies of the respective governments.

In broad categories, the textile and clothing industries in industrialized countries benefitted from

- general industrial incentives, which were being provided to all industrial branches alike; and/or
- special incentives provided to promote development in structurally less developed regions; and/or
- branch-specific incentives, aiming at restructuring and revitalizing the textile and clothing industries.

A general overview of policy instruments according to the three orientations is provided in table 8. It should be noted, though, that the border line between general, regional and branch-specific incentives is not always very clear-cut. Regional incentives have similar effects as branch-specific incentives in cases where industrial branches are concentrated in, or (through regional incentives) attracted to, specific regions. Also several of the general incentives listed in table 8 (or special terms of such

^{1/} Information presented in this section on textile industry programmes pursued by OECD member states is based on Benoit Boussemart, "L'Ajustement Structurel dans la Filière Textile", report prepared for the OECD, Industrial Policy Division, Paris 1986, and Jürgen Wiemann, "Selective Protectionism and Structural Adjustment", German Development Institute, Berlin 1983.

Table 8. Classification of textile-policy instruments and programmes provided to textile and clothing industries of developing countries

Objectives	General promotion of industry development	Policy and programme orientation	
		Regional development	Branch-specific
Improve the functioning of markets	Competition and anti-trust policies Regulatory environment National investments in infrastructure	Improve infrastructure and other basic services Remove or reduce cost disadvantages	Sponsor the collection and dissemination of information Promote joint industry research and productivity centres
Influence resource allocation	Incentives for industrial research and development Accelerated depreciation allowances Labour training schemes	Investment grants and concessions Fiscal advantages Mobility and training grants	Subsidies and special grants for research and development Government procurement schemes Defence spending Labour training schemes
Industrial restructuring and modernization	General merger policy Investment and dividend tax policy Early retirement and shorter working week Retraining and relocation grants	Added incentives for relocation of facilities Exemptions from crisis measures applicable elsewhere	State ownership and rationalization Capacity reduction schemes Promotion of mergers and takeovers
Relief from competitive pressures	Employment subsidies Investment grants tied to employment maintenance Competitive devaluation	Income maintenance schemes Support for continuing wage differentials	Trade protection Creation of crisis cartels Wage and employment freezes Employment subsidies, investment grants

Source: Adapted from Jose de la Torre, Clothing-Industry Adjustment in Developed Countries, Thames Essay No.38, Trade Policy Research Centre, London, 1984, p.7.

incentives) have been granted by governments on a branch-specific basis only. Branch-specific incentives, again, have been given either ad hoc or in the framework of comprehensive "textile plans".

Main differences to the policies applied by developing countries, which were summarized in table 7, are the emphasis of developed countries' textile policies on research and development activities, the collection and dissemination of market information and the training of workers. This does not imply that these activities have been completely neglected by developing countries, but, apart from few exceptions, less attention has been paid to these issues by developing countries in the past.

In the European Community, common textile and clothing policies have been widely confined to the area of trade policy (in the framework of the various extensions of the MFA), with the exception of a branch-specific allocation of 3.9 million Ecu (approximately US \$4.5 million) within the EC's programme to promote research and development. However, the textile industry's share in funds provided by the EC remained small and even to the contrary, the Commission of the EC intervened in various cases against specific incentives contained in support schemes of member states. Support to R & D activities of the textile industry (both of individual enterprises and joint research activities) is also at a significant scale by the Governments of various EC member states, such as the F.R. Germany, France, the Netherlands, Belgium and Italy.

Among EC countries, the least interventionist policy response to the problems of the textile and clothing industries was given by the F.R. Germany, which opted not to apply branch-specific industry policy programmes. Yet, also here the restructuring of both industrial branches was not completely left to the free play of the market forces. First, enterprises were protected from external competition from developing countries through trade restrictions negotiated by the EC, and second, textile and clothing enterprises benefitted significantly from regional development programmes. For instance, in 1979, 1980, 1982 and 1984, investment subsidies or subsidized loans given to the textile industry under regional development schemes accounted for 9.4 per cent, 7.5 per cent, 8.8 per cent and 9.5 per cent of the industry's investment in the respective years.^{1/}

Whereas support given to textile enterprises in the F.R. Germany was not limited to this branch and principally was applicable to all industrial enterprises, other EC countries did apply branch-specific incentives. To name a few examples, the U.K. implemented a Wool Plan in the early 1970s (involving £20 million), a Clothing Industry Scheme between 1975 and 1977 (£20 million), and intended in 1984 to apply a scheme to modernize small- and medium-scale enterprises (£20 million; however, the EC Commission intervened against this scheme).

In Italy, subsidized investment loans have been granted since 1971, and since 1978 state loans or loan guarantees are provided for the restructuring of the industry. Yet, more important in the case of Italy has been direct state intervention through public enterprises, particularly in the man-made fibre segment. This involvement had a positive impact on further down-stream segments of the complex, which benefitted from the provision of intermediate inputs at favourable prices. In the late 1970s, the Italian state financed the accumulated deficit of Montez fibre. Through E.N.I. (Ente Nazionale Idrocarboru = Italian state holding company), the state controls the country's

^{1/} Other examples of the textile industry benefitting from regional development schemes are Finland and Spain.

largest textile company (Lanerossi), and secured the survival of many marginal textile mills through direct financial participation and involvement in the management of these firms by GEPI (Gestioni e Partecipazione Industriale).^{1/}

Public enterprises are important not only in Italy's textile industry. Examples in other EC countries are the Rhône-Poulenc group in France after its nationalization or the merger of eight textile mills in the Netherlands in 1979, representing 90 per cent of the national production capacity into a holding with a 49 per cent public share.

Financial incentives to the textile industry were also provided by industrialized countries which are not members of the EC. For instance, Norway supported investment into new machinery from 1978-1982, Canada implemented a programme of 250 million Canadian dollars (approximately US \$195 million) in the 1981-1986 period, and in the U.S.A., 518 clothing and 71 textile enterprises benefitted between 1975 and 1982 from adjustment support in the framework of the U.S. trade legislation.

Although all these measures were more branch-specific in nature compared to the industrial and regional policies pursued by the F.R. Germany, they did not constitute comprehensive programmes for the whole textile-clothing complexes of these countries. Within the EC, such a comprehensive approach was taken by Belgium, France, the Netherlands, Portugal and Spain, all of which implemented "Textile Plans". The plans generally

- specified industry-wide restructuring objectives based on a comprehensive assessment of the industry's status, development potential and resource availabilities;
- provided financial support to companies to re-establish the financial viability of enterprises ("balance-sheet restructuring"), to modernize the equipment and adapt the product-mix to changed market requirements ("technological and product-mix restructuring"), and to make changes in the company structure and technology consistent with the available labour force; and
- established new institutional arrangements involving the main agents concerned, in order to co-operate in the implementation of the plan and/or monitor its progress.

The explicit consideration of the impact of the desirable changes in the industry on the industry's labour force turned out to be a key factor for the success of restructuring programmes. First, modernization in the textile industries of industrialized countries has a scale effect, reducing in absolute terms labour requirements. In response to this, various countries subsidized the reallocation of labour to other industrial branches, e.g. through training grants, and/or provided early retirement benefits. Second, the introduction of new machinery calls for an optimal utilization of such equipment at three shifts, requiring a flexibilization of labour legislation concerning working hours (work at night and during weekends). Third, the high investment cost of new technologies calls for an optimal utilization of these technologies with the reduced labour force. In response to this, governments subsidized labour studies at the shop floor level to improve work organization and material flows.

^{1/} GEPI is a public financing company with the objective of supporting the financial restructuring of troubled private companies in order to establish a sound financial basis which would ensure their survival. Involvements of GEPI were, therefore, intended to be of a short-term, trouble-shooting nature. Yet, political pressures towards maintaining employment resulted in GEPI involvements coming close to permanent state participations.

In the following two sections the key elements and instruments of restructuring plans implemented by industrialized countries will be reviewed in more detail, using the examples of the Textile Plans of Belgium and Spain. The experience of Belgium is particularly interesting, not only as the programme was implemented very successfully, but also as the structure of the Belgian plan is highly illustrative of the major areas and issues involved in similar exercises of other industrialized countries.^{1/} The second example, Spain, is particularly interesting as Spain is an example of the textile-exporting mediterranean countries which will be strong competitors with Asian and Latin American exporters in the future. Spain's industry is under strong adjustment pressure stemming from competitors of other industrialized countries, following Spain's entry into the European Community. In this sense, the Spanish industry is in a comparable position to industries in developing countries, where governments have taken (or are considering to take) measures to liberalize their trade regimes and to expose industry more to external competition. The Spanish case was chosen to exemplify restructuring programmes which may be applied to help industry to adjust to a new competitive environment.

3.2 Case study: The Belgian Textile Plan ^{2/}

Troubled by an accelerating decline in textile and clothing employment, a loss of market share in the European Community, and the bankruptcy or voluntary closing of a large number of textile and clothing companies, the Belgian government decided in 1978 to intervene in an attempt to (1) stabilize employment, and (2) revitalize the competitiveness of these industries, at least within the European Community.

3.2.1 Institutional framework

To develop appropriate policies and programmes, a tripartite committee was established consisting of representatives from Government, employers' associations and labour organizations. The restructuring proposals developed by this committee were based on the results of large-scale industry studies undertaken by three consulting firms.

On the basis of the considerations of the recommendation of the consulting firms by the tripartite committee, a restructuring plan was formulated by the Council of Ministers and finally approved by the European Community Commission on 18 November 1981.^{3/} Its primary objective was to stabilize employment at about "100,000 commercially justified jobs in a modernized and competitive textile and confection sector by 1985."

A new decision structure, involving two institutions, was created to implement the plan. The Institute for Textile and Confection of Belgium (I.T.C.B.), a tripartite (Government, employers, and labour), non-profit

^{1/} In fact, Belgium's approach was very similar to the approach of France.

^{2/} This section is based on "The Restructuring of the Textile Industry in Belgium - A Success Story" - unpublished report prepared for UNIDO by Willy Ramboer, November 1985.

^{3/} European Community member states are in principle obliged to notify and gain approval from EC authorities of any specific aid measures they intend to implement.

organization, was created to verify that the philosophy of the plan was being observed, and to receive and analyse the initial requests for assistance. In addition, it was solely responsible for the implementation of the auxiliary service segment of the plan. A public holding company, the National Company for Financing and Restructuring of National Sectors (N.M.N.S.), received I.T.C.B.-approved requests and either ratified or disapproved the decision. Disapproved requests were submitted to the Minister of Finance and the Minister of Economic Affairs for arbitration. The holding company was also used as the financing vehicle for the Government's participation in approved restructuring projects.

The plan consisted of three distinct yet mutually supportive parts:

- (1) financial and modernization restructuring;
- (2) auxiliary service development; and
- (3) social service support.

3.2.2 Financial and modernization restructuring

The purpose of the restructuring segment of the plan was to reduce fixed costs through the reduction of excess capacity and overhead costs. Variable costs were also to be trimmed through improved productivity, lower purchasing costs, and lower energy costs. To achieve these objectives, it was believed necessary to strengthen the capital structure of individual companies to permit the necessary improvements in productivity to occur.

The restructuring segment of the plan was implemented under the following conditions:

1. Companies participating in the restructuring programme were selected on the basis of their submitted projects and the company's financial viability. The companies were to be viable at the time the project was submitted, or were to achieve viability in less than 3 years. As a result, no aid was awarded to companies in serious financial difficulties.
2. The submitted project could not result in an increase in capacity, as it was not the intent of the Belgian Government to create additional capacity in any sector or sub-sector of the country's textile and clothing industries.
3. The company applying for support was required to contribute 30 per cent or more of the required financing, and the financial sector (banks) another 25 per cent in the form of a 5-year loan with a subsidized interest rate of 7 per cent. The government's share in the project could not exceed 45 per cent, and was to be repaid within 15 years, with repayments starting in the sixth year. It was considered critical to the success of the project that the company share a significant portion of the risk associated with its plan.
4. The government's involvement was through the N.M.N.S. holding company which purchased non-voting stocks in the targeted companies in the amount needed to finance the project.

Each company and its project was evaluated to determine whether it was commercially viable in terms of the market situation, labour relations, management capabilities, etc. These evaluations were undertaken by specialists hired by I.T.C.B.

3.2.3 Auxiliary services

An original departure from the traditional approaches used to revitalize or restructure industry was the Belgian government's decision to support with subsidies several non-productive auxiliary activities associated with the marketing of textiles and clothing. These activities included fashion and design, market studies and commercial undertakings, research and development, and training. The reason for including the market-oriented package of services was the overall purpose of the restructuring programme - to expand Belgium's share of EC textiles and clothing markets.

The responsibility for implementing this segment of the plan was given to the "Services Centre", created within the I.T.C.B. The role of the Centre was to overcome the industries' weak points: fashion, creativity, product innovation, and marketing. At the same time, it was to consolidate the industries' strong points: quality, flexibility, viability, and customer service.

In addition to creating a better overall image of the Belgian textile industry in EC markets, efforts were concentrated in three areas: (1) creativity and promotion; (2) research and development; and (3) training. Particular attention was given to "collective" actions more suitable for small and medium-sized companies, as it was felt that the larger companies had their own resources to develop these strengths.

To improve on the creative dimensions of the clothing industry, the I.T.C.B. provided assistance and financial aid to clothing, hosiery and home furnishing companies to improve on their collections. As a result of this assistance and aid, these companies were able to recruit stylists, mainly on a freelance basis, and were able to shift from more classical collections to more fashion-oriented products.

To increase fashion awareness, the institute also encouraged image-improving activities in the appropriate markets. For example, a large-scale campaign was undertaken to bolster the concept "This is Belgian". Also, stylism competitions are now held with the idea of providing young talents opportunities to display their collections and develop their creative skills. Finally, participation in foreign exhibitions and trade fairs is supported by the Belgian Office of Foreign Trade. The use of collective stands is encouraged.

Research and development activities were also supported, primarily on a collective basis.^{1/} Most R & D projects were conducted by existing laboratories, and included the development of a colour-matching system; services for the evaluation of energy consumption and savings; and a service for the analysis of dye-baths. In the clothing sector, which lacks research centres, specific joint initiatives have been taken involving the I.T.C.B., professional organizations, and groups of companies (mainly small and medium-sized firms). For example, support was given to six cooperative efforts to develop an economical system for computer-assisted grading and drawing of patterns. Other projects involved the introduction of an integrated materials management system in the clothing, hosiery and spinning sectors, and the introduction of a production control system in the hosiery sector.

^{1/} Group or collective projects received greater subsidization than individual company projects.

Finally, the lack of trained specialists (e.g., textile engineers) has created some problems for the affected industries. In order to improve the image of these industries as places to seek and develop careers, the I.T.C.B. has launched a number of press campaigns. The institute has also undertaken a study of the professional needs in the textile and clothing industries in order to determine the types of training required, and the number of specialists needed.

3.2.4 Social services

Many countries, particularly the developed countries (e.g., the Federal Republic of Germany, the Netherlands, and Japan) developed and implemented adjustment programmes which were designed to shift labour to more productive industries, or included provisions for the early retirement or retraining of displaced workers. The Belgian restructuring plan included the following provisions in its social services segment:

- Complementary unemployment allowances were granted to female and male workers less than 52 or 57 years old, respectively. This allowance was granted in addition to normal unemployment allowances for a 2-year period and was linked to the cost-of-living index.
- Female and male workers at the age of 52 or 57 years or older, respectively, who had lost their jobs were granted a waiting allowance equal to 80 to 95 per cent of their net salary until they reach the legal pension age.
- Early retirement benefits were granted to female and male workers at the age of 52 or 57 years or older, respectively, who were dismissed from their jobs between 1 January 1981 and 31 December 1985. About 7,000 persons applied for this retirement allowance between 1981 and 1985.

3.2.5 Evaluation of the plan

The plan has achieved many of its original goals. For example, instead of employment declining to the 75,000 level which was forecasted by the studies for the case that no action would be taken, employment in the textile and clothing industries actually increased from 101,500 persons in 1983 to 102,100 persons in 1984. In addition, the industries have succeeded in regaining market shares in the EC. The Belgian production of textiles increased from 6.5 per cent to 7.5 per cent of overall EC production, and clothing production increased from 3.6 per cent to 4.0 per cent.

One essential element for the success of the Plan was the emphasis put on the supply of risk capital. However, the companies assisted needed to be either financially viable at the time they received support or at least to have good prospects of becoming financially viable within a short time. Also, the projects submitted had to be practical and in line with market conditions.

A second basic element was the multi-dimensional and internally consistent nature of the plan. That is, the financial restructuring segment was being supported with other complementary activities: modernization, increased commercial activities, stimulation of creativity and product innovation and training.

The Belgian example supports the argument that the problem confronting textile and clothing industries involves more than a lack of financial resources. Well-conceived and implemented national plans can play a significant role in solving these problems. The Belgian experience also demonstrates that the size of the companies involved does not need to be an insurmountable barrier. Aggressive marketing, originality, promotion, and collective undertakings can overcome the deficiencies normally characteristic of small and medium-sized companies.

3.3 Case study: The Spanish Textile Plan ^{1/}

3.3.1 Background and objectives

Policy intervention in the textile and clothing industry has a long tradition in Spain and dates back to 1960. From October 1960 to April 1980, a total of eight textile plans were approved and implemented. Concerning the objectives of these plans, two phases can be distinguished. During the first phase from 1960 to 1967, emphasis was placed on the modernization of equipment (including destruction of outdated machinery), the rationalization of enterprises and increases of capacity of existing enterprises or the establishment of new enterprises. Preferential credits were provided for these purposes by the Industrial Credit Bank, which financed up to 70 per cent of such investments. In the second stage from 1968 to 1980, emphasis was changed to consolidating the industry and the closure of not viable plants was supported. In addition, a facility was introduced to compensate workers who lost employment as a result of plant closures under the plan.

The key policy instruments used during this period were rules governing investment. While a law introduced in 1963 principally liberalized industrial investments from authorization requirements, the textile industry remained an exception. Investment rules differed between the various segments of the complex, and included advance authorization requirements for investments and minimum scale requirements. Beginning in 1974, a process of subsequent liberalization of investments in the various segments of the complex was initiated and completed in 1980.

This sequence of Spanish textile plans in the 1960s and 1970s was implemented in a general economic setting characterized by full employment, high private investment and sizeable protection against external competition. State intervention through investment authorization requirements was therefore a feasible, although not necessarily effective instrument to control the development of the industry's structure. In the early 1980s, parameters had changed completely. The international economic recession had also affected Spain and the stabilization and promotion of new investment demand was required rather than support to the scrapping of obsolete machinery. Spain was preparing itself to join the European Community, requiring to raise the competitiveness of its industry to the levels achieved in other member states. The emphasis of past plans on the capital stock was not adequate to these new parameters, which required promotional efforts to include additional factors such as improvements of design, marketing, the organizational structure of enterprises and trade promotion. Key objectives of the new Textile Industry Restructuring Plan initiated in 1981 are therefore to raise the competitiveness, productivity and productive flexibility of the Spanish textile industry to international levels, to upgrade its production mix by increasing the share of higher-value-added items, and to improve the

^{1/} This section is based on an unpublished report prepared for UNIDO by Dr. David Montero, Madrid, September 1985.

managerial, productive and financial structures of participating firms. Employment is to be stabilized at the industry level, anticipating changes in its distribution in the various segments of the textile-clothing complex. In the spinning and weaving segments, where more than 40,000 jobs have been lost between 1983 and 1985, it is expected that the labour force will be stabilized around existing levels, based on more productive, economically sound work places. New jobs are hoped to be created through expanding exports of clothing, both directly (clothing manufacturing) and indirectly (fashion, design, marketing, training, manufacturing of textile machinery, and services).

3.3.2 Incentives and other measures

Both fiscal and financial incentives are being provided. In general the fiscal incentives consist of tax credits related to plan-associated investments in fixed new assets, and include

- tax credits on customs duties, turnover taxes and provincial surcharges when the investments incurred are for the establishment of new plants using equipment and tools not manufactured in Spain;
- deductions on investments, up to 40 per cent of the quota of the Corporation Tax; and
- deductions in corporation and income taxes of individuals when new establishments are substituted for existing ones.

In addition to these fiscal incentives, direct financial assistance is being granted. For example, a subsidy of up to 20 per cent is given on tangible investments, and up to 30 per cent on intangible assets. The latter provision aims particularly at activities in the fields of design, fashion, quality improvements and marketing. The sum of the subsidies, however, is not to exceed 70 per cent of the total investment. Subsidies granted as part of existing regional incentives will continue to be given provided they do not exceed 30 per cent of the investment.

Provision have also been made to increase the productive flexibility of the industry and to enable it to react to seasonal fluctuations of demand. For example, it is possible to spread dismissal indemnification payments over a twelve-month period. Also, social security requirements are eliminated for up to 60 days during the suspension or reduction of working days resulting from seasonal demand changes. Finally, early retirement, voluntary leaves and voluntary sabbatical leaves are given preference.

3.3.3 Evaluation of the reconversion plan

Between October 1981 and July 1985, 476 company reconversion plans were approved. Results have been positive. The number of jobs lost among the companies participating in the plan was about 9.4 per cent compared to 15 per cent for the whole sector. Exports grew by more than 370 per cent for the participating companies, and productivity increases averaged about 60 per cent for the period.

The major problems encountered to date include (1) a lack of interest in the plan by small and medium-sized clothing companies, and (2) insufficient development in the areas of fashion and marketing, product standardization, training of personnel, and the development and dissemination of information

In order to overcome these deficiencies, the Design and Fashion Promotion Plan was approved. This particular programme is designed to:

- improve on the overall creativity and quality levels of Spanish textiles in order to increase their competitiveness in domestic and international markets;
- increase the value added of Spanish textile products, targetting them at higher segments of the domestic and international markets; and
- more firmly integrate the Spanish textile and clothing industries into the international markets.

To achieve these goals, the Spanish Government plans to provide the following services and investments:

1. assist in the development of a promotional infrastructure;
2. stimulate textile and clothing companies to improve on their creativity and thus on the design and fashion aspects of their products;
3. assist in the enhancement of these industries' image in the domestic market; and
4. assist in developing a prestige image for Spanish textile and clothing products in foreign markets.

The Spanish Government plans to create teaching centres, and supply the necessary staff and materials for improving on the education of textile and clothing personnel. To insure that these centres will be used, it has also assumed responsibility for creating the instruments necessary to increase contact between these centres and the targeted industries.

At the same time, the plan calls for the development and eventual dissemination of promotional materials related to Spanish textile and clothing products on an international scale. A major thrust of this promotion activity is to identify Spanish products with the Spanish culture.

Finally, a Centre of Promotion of Design and Fashion has been created. Its responsibilities include the evaluation of applications received from individual firms to benefit from the Design and Fashion Promotion Plan. In addition, the centre is responsible for initiating studies and implementing action plans requested by the Ministry of Industry and Energy. It is also required to develop proposals for promoting design and fashion in the targeted industries.

4. The restructuring of textile complexes in developing countries: Key areas and policy issues

Both developed and developing countries have actively pursued in the past policies in support of their textile and clothing industries. As was argued, there were differences in objectives. Developing countries aimed at establishing and expanding their relatively young industries and at strengthening their comparative advantages. Developed countries replied with restructuring programmes in order to meet low-cost competition from emerging competitors and in order to re-establish comparative advantages. In many industrialized countries, these programmes have been very successful and resulted in highly efficient, versatile, but also very capital-intensive industries. It appears, therefore, that the 1990s will constitute a "third round" in the competition between developed and developing countries for international market positions, in which the crucial objective will not be "restructuring to meet low-cost competition", but "restructuring to meet high-efficiency competition". The main actors in this round will need to be the developing countries, which now have to "re-establish" already lost or to consolidate threatened comparative advantages. In this concluding chapter key issues and policy implications will be summarized which emerge from the international restructuring experience and which constitute essential parts of the framework within which such future restructuring programmes of individual countries will have to operate.

4.1 Assessment of restructuring requirements and prospects

The first step towards the design of a textile industry restructuring programme, be it for one segment or the entire complex, is a comprehensive stocktaking and evaluation of the industry. This assessment should be done in national and international perspective, incorporating both supply and demand aspects.

In the national perspective, this would include an evaluation of the textile industry's performance in terms of its past, current and potential contribution to the achievement of key development objectives, such as

- economic and industrial growth;
- foreign exchange earnings/savings;
- employment and income generation;
- price stability;
- satisfaction of basic domestic needs; and
- regional development.

In the international perspective, the focus is on the industry's competitiveness. Product prices, product quality, wage costs, capital costs, input costs and the structure of production costs would need to be established and compared with corresponding parameters of international competitors. This assessment would need to be complemented by an analysis of demand aspects, in which the actual and potential (given the country's resource endowment) product basket would be contrasted against current and prospective national and international demand trends. Based on this assessment of the industry in national and international perspective, the desirable direction and extent of the required restructuring process can be established.

In a final step, these restructuring objectives need to be transformed into a policy programme, including an estimation of resource requirements. For this purpose, the relevant national parameters would need to be established in terms of the textile industry's capital stock, its technological vintage, productivity, rehabilitation potential and modernization needs, using again as a yardstick international standards ("best practice" norms and levels achieved by main international competitors). Relevant national parameters to be included would constitute factors decisive for the "market effectiveness" of an industry such as distribution channels, marketing efforts and design activities.

4.2 Technological upgrading: a selective approach

A key factor in efforts to promote the international competitiveness of textile and clothing complexes is the modernization of the capital stock. Technological advances of machinery manufacturers in developed countries and the subsequent diffusion of these technologies in the textile industries of industrialized countries resulted in higher production speeds and corresponding productivity gains which are eroding wage cost advantages of developing countries. Yet, whereas continuing wage cost advantages of developing countries still may be held against technology-based productivity leaps of industrialized countries, there are no comparable assets of developing countries when it comes to other advantages associated with the new technologies: quality improvements and increases in production versatility and flexibility. Although the economic relevance of these advantages varies between individual product categories, it becomes more and more obvious that in the production of textiles developing countries will have to follow the modernization efforts of industrialized countries, if they do not want to run the risk of remaining internationally competitive in simple, low-value-added products only.

Unfortunately, the developing countries' "degrees of freedom" in determining their own modernization path appear to be rather limited. Technological innovation of major machinery manufacturers has been closely linked to the needs of the markets and the factor costs in the industrialized countries. Therefore, the major thrust has been to develop equipment designed to offset the comparative advantages developing countries have in labour-intensive activities. It has also emphasized the productive flexibility features generally associated with short production-runs of high fashion, high premium fabrics and clothing. As a consequence, technological innovation in textiles and clothing manufacture has not been focused on the specific needs and relative factor endowments of the developing countries. Only a few developing countries have managed to establish their own textile machinery capacities (most notably Brazil, India and the Republic of Korea), but many of these companies remain closely linked to major machinery manufacturers in industrialized countries. Therefore, no active research has been pursued in developing "intermediate technologies" corresponding to specific needs of developing countries. Yet, developing countries do have a technology choice as different "vintages" of technology continue to be offered in the international machinery market.

Crucial policy decisions, therefore, are called for in this context concerning what type of modernization investments should benefit from incentives to a modernization programme, in terms of types of machinery/segments of the whole production chain, in terms of enterprises eligible for incentives, and in terms of the vintage of the equipment. As to

the first issue, it is realistic to assume that limits to the resources which can be made available to a modernization programme exclude the possibility of a complete modernization up to latest technological standards of all segments of the production chain. A selective approach would be therefore called for, requiring, through a thorough industry study, an identification of those critical links in the production chain which demonstrate the most significant deviations from international standards and which constitute key bottlenecks preventing the textile industry from achieving international efficiency levels. Based on this, "eligibility criteria" may be established to determine which companies would benefit from modernization incentives. In many developing countries, for example, one of such critical elements consists of the dying/finishing segment. As pointed out in section 2.5.3, the Republic of Korea responded to this situation through inducing dyers to move into special industrial complexes established with government funding. Such functional specialization and locational concentration in connection with the modernization of certain processing activities is a financially feasible solution to the modernization needs particularly of industries characterized by a high share of small and medium-sized enterprises and by relatively large modernization needs across the whole production chain.

Yet, in many developing countries the textile industry is of a highly dualistic structure, characterized by the co-existence of a usually large segment of small to medium-sized enterprises, operating with an outdated capital stock and serving mainly the domestic market, and a usually small segment of medium- to large-scale enterprises, serving both the domestic and external markets. The latter segment often consists of some highly modern enterprises complying with advanced technological standards and many technologically heterogeneous enterprises, operating modern and outdated equipment at the same time. The co-existence of both types of equipment is often given both within one manufacturing stage (e.g. spinning) and between various manufacturing stages (e.g. modern weaving equipment, but outdated finishing equipment), constituting a main bottleneck to achieving international efficiency standards.

Such enterprises constitute, under cost-benefit considerations, a particularly promising target group for modernization programmes under resource constraints, resulting in a maximum increase of the industry's efficiency with minimal financial support requirements. Focussing on these enterprises would correspond to a "picking-the-winner" strategy when it comes to establishing eligibility criteria for companies to benefit from modernization incentives. At the operational level, such companies may be identified taking investments undertaken in a reference period as a yardstick. Yet, this criterion by itself does not necessarily identify future "winners", as a company may have significantly invested, but in production lines not corresponding to the country's long-term comparative advantage. Company-specific variables will, therefore, not be sufficient for the determination of eligibility criteria. A thorough and comprehensive stocktaking of the industry's status in terms of international cost-efficiency, quality- and design-standards, and, based on this, an assessment of its desirable structural change in the framework of a "textile plan" is, therefore, an essential pre-condition for the establishment of sound eligibility criteria.

International productivity standards in combination with criteria derived from the established restructuring objectives may also be used to decide whether technology of an older vintage should benefit from modernization incentives. This issue is highly relevant as the experience of some countries has shown that some industrialists took advantage of modernization incentives effecting capital flight, through imports of old, over-invoiced equipment.

4.3 Auxiliary services

Emphasis on production efficiency is a necessary and vital part of any development, revitalization or restructuring programme. At the same time, however, new and increasing attention is being focused on gaining market effectiveness. In many countries, Governments and industries, mostly in joint undertakings, are seeking effective ways to increase the capabilities of their industries to be responsive to international market trends and demand shifts. This is being accomplished primarily through the increased use of market intelligence, a concentration on productive flexibility, fashion, design and quality control, coupled with increased efforts to develop international market linkages.

In the field of fashion and design, technological progress (CAD) enables developing countries to quickly respond to changing trends in their main export markets. Yet, given the size structure of the industry in many developing countries and high investment costs of introducing these technologies, many individual companies are not in a position to benefit from these technological advances. The establishment of design centres is, therefore, an option to improve the design structures of a country's industry on a wider basis. In this connexion a lack of skilled designers is constituting a bottleneck in developing countries. Support to the contracting of international designers or to the fielding of national designers for training abroad has been successfully applied by several countries to overcome this constraint. In the framework of a Textile Industry Restructuring Programme a National Design and Fashion Centre may be entrusted with advising individual companies on the incorporation of design and fashion improvements into their restructuring plans.

The financing of such institutions could come from various sources and should be tied to some extent to the benefits. Thus, activities which would benefit specific enterprises (such as quality control centres) could be principally financed by their customers, through charging for their services. However, public financial support might be required in the initial phases, and in the long term the demand for the services of such institutions should be promoted through appropriate policy action, such as the requirement of obtaining quality certifications issued by such institutes. In addition, joint activities could be partly financed through levies on imports and/or domestic production, as is currently being done in several European countries.

Marketing is another priority area for joint industry-government activities. Until now, many developing countries are pursuing a passive marketing strategy. Close contacts to trading houses in Europe, Japan, and the United States channel information to developing countries on quality standards, product variety, design and fashion. Large trading houses also provide access to their import markets and reduce the difficulties and costs associated with establishing market outlets and distribution chains. Arrangements between producers of intermediate products in industrialized countries and textile mills and clothing industries in developing countries provide additional channels for communicating information on market trends, fibre developments, and associated textile technology requirements. Licensing and management contracts provide additional sources for gaining experience in the manufacture of products acceptable in international markets in the selection of appropriate equipment and the training of personnel.

Yet, the development of such international linkages will not automatically spill over into the development of indigenous market intelligence capabilities in developing countries. It leaves developing countries as "price, quantity and design takers". Particularly for the relatively advanced textile and clothing industries of developing countries it will become important in the future to play a more active role in this field. Regional co-operation may be a particularly promising road towards the strengthening of own marketing capabilities, e.g. through joint exhibitions at the regional level.

Finally, the establishment and expansion of textile-clothing related training facilities is a necessary complement, and possibly even pre-condition to programmes aiming at increasing the industry's efficiency. In fact, a lack of skilled textile technicians prevents in many countries the achievement of minimum efficiency standards which could be obtained with given equipment. As serious as this quantitative lack of trained specialists is for developing countries, the rapid pace of technological innovation has added a new qualitative dimension to the problem. Existing curricula do not any more fully correspond to the needs of industry. A stocktaking of existing skill profiles in the textile and clothing industry, a comparison with required profiles resulting from a modernization programme, and the adjustment of training programmes in size and content will need to form an integral part of national policy programmes to restructure the textile and clothing industries.

4.4 The role of labour

In several developing countries the labour force works at wage costs which are considered not to properly reflect the countries' relative factor endowments and which therefore are higher than in competing countries. Such a distortion may be partly due to the prevailing exchange rate, partly due to structural characteristics of the labour market and existing labour legislation. The negative impact of this on these countries' international competitiveness reinforces cost disadvantages deriving from the operation of outdated machinery.

Maintaining an exchange rate which keeps manufactured exports competitive, and both financial and technical assistance to support efforts of enterprises to improve productivity and quality would therefore be necessary, although not sufficient elements of a restructuring programme. A second requirement for the success of a restructuring programme in this context would be to increase the flexibility of the labour market. The results of an effective restructuring programme would be both increased efficiency and changes in the composition of output. In several countries, policies of the labour unions and their strong positions may create obstacles to desirable efficiency increases. For instance in some developing countries, unions enforce that the number of looms and spindles to be taken care of by one worker falls far short of the standards in industrial countries. Salary increases in line with the increased productivity of labour through raising the number of machines per worker are sometimes not being accepted by the trade unions.

As to changes in the composition of output resulting from a restructuring programme, it cannot be expected that these changes could be accomplished always in the same enterprises. Some reallocation of labour between enterprises might be necessary. This, again, would be facilitated by labour legislation providing for greater flexibility.

It is not being argued here that acquired rights of the labour force should be simply eliminated. Instead, one would need to look for solutions which give due consideration to the interests of all parties concerned and to the requirements of and prospects offered by the restructuring programme itself. One approach to be considered in this context would be to negotiate a specific collective agreement which would pertain only to those enterprises which participate in the restructuring programme. This agreement would couple more flexibility for entrepreneurs to reallocate or (temporarily) reduce the labour force with wage rates (or other forms of compensation) which would be higher than in enterprises outside this agreement and the restructuring programme. Higher wages would be justified by increased labour productivity as result of modernization efforts, but should of course not eliminate the necessary effect of productivity increases on the profitability and thus international competitiveness of enterprises. To be effective, such a specific collective agreement would need to include all major trade unions established in a country's textile industry.

4.5 Establishing an institutional framework

The provision of financial resources to selected enterprises in order to promote technological modernization will not lead to the desired results without the creation of a corresponding institutional framework. As indicated in the preceding section, the involvement of labour in the implementation of a restructuring programme and its active co-operation would be an essential pre-condition for the success of the programme. There are no doubts that a successful restructuring programme will affect the labour force in terms of the allocation of jobs within and between enterprises, skill requirements etc. This does not mean, however, that a successful restructuring programme will result in a reduction of the labour force. In many developing countries, a significant demand potential is given in the internal market. Yet, this potential is often hardly utilized, given low domestic purchasing power and high production cost. A successful restructuring programme will tend to reduce this imbalance, through its income-generating and cost-reducing impact. In addition, in international perspective, failure to implement a restructuring programme might eventually endanger even the labour force actually employed, in view of rapidly changing comparative advantages and increasingly fierce international competition.

In order to ensure the smooth functioning of the programme it is essential that all parties concerned should be consulted concerning its design and should co-operate in its implementation. Several countries, therefore, have established a permanent, tri-partite body, involving the Government, industry and labour, to discuss the key elements and instruments of a restructuring programme, to monitor the restructuring process and to serve as a forum for settling disputes between different actors.

This tri-partite body may be closely attached to or form part of an institution to be created which would be in charge of actually implementing the programme. This institution could, amongst others,

- evaluate and approve company restructuring plans;
- provide special financial support to the modernization efforts of small and medium-sized companies;
- support the horizontal amalgamation of companies in order to create more efficient units;
- finance collective activities undertaken by the industry.

The exact composition of such a body, its organizational structure, its decision-taking rules and its power to enforce its decision may vary from one country to another, depending on such a country's "political culture", "political philosophy" and social and economic structure. Yet, it is advisable to countries planning a restructuring programme to carefully analyse the experience made with such instruments and institutions in the countries which are presently implementing or already have implemented a restructuring programme, and to evaluate this experience against their specific situation. Carefully designed restructuring programmes, which would be supported by the main actors concerned, would provide new, powerful stimuli to the growth of developing countries' textile industries, and thus, by the same token, contribute significantly to employment generation, foreign exchange earnings and the fulfilment of basic needs.

ANNEXTable A-1Export composition of DMEs, 1965-1985

(Percentage)

Product group	1965	1970	1975	1980	1985
Grey yarn	3.3	2.0	1.6	3.2	3.1
Processed yarn	2.5	1.4	1.7	0.4	0.5
Synthetic yarn	16.9	22.2	18.9	15.9	14.9
Natural fabrics	24.2	11.8	12.3	13.0	12.7
Synthetic fabrics	11.6	17.9	20.0	17.7	16.4
Clothing	18.7	20.1	22.9	26.2	27.7
Accessories	4.5	3.6	3.4	2.8	2.9
Knitwear	18.3	21.0	19.2	20.8	21.8

Import composition of DMEs

Grey yarn	3.5	2.5	2.5	4.0	4.0
Processed yarn	1.4	1.4	1.0	0.2	0.2
Synthetic yarn	13.4	16.7	11.7	9.6	8.0
Natural fabrics	22.3	13.2	12.2	11.2	9.6
Synthetic fabrics	7.7	9.4	10.8	9.1	7.9
Clothing	22.9	25.9	32.1	37.1	40.3
Accessories	4.9	3.8	3.2	2.7	2.5
Knitwear	23.9	27.1	26.5	26.1	27.5

Table A-2
Export composition of ATEs, 1965-1985
(Percentage)

Product group	1965	1970	1975	1980	1985
Grey yarn	4.2	3.0	4.1	5.1	1.6
Processed yarn	0.6	0.5	0.4	0.2	0.1
Synthetic yarn	0.5	0.7	2.7	3.8	3.4
Natural fabrics	26.4	16.0	9.6	8.2	6.2
Synthetic fabrics	1.9	3.5	5.7	9.8	10.6
Clothing	36.6	39.9	42.5	44.6	45.7
Accessories	3.4	5.0	2.3	2.1	1.6
Knitwear	26.4	31.4	32.7	26.2	30.8

Import composition of ATEs

Grey yarn	4.6	5.9	10.0	9.4	6.3
Processed yarn	1.3	1.1	1.4	0.4	0.2
Synthetic yarn	11.5	22.3	18.4	13.7	11.1
Natural fabrics	43.3	19.6	21.7	21.0	19.0
Synthetic fabrics	16.5	40.5	35.7	33.7	29.7
Clothing	11.5	4.5	5.5	11.0	16.4
Accessories	2.3	1.5	1.8	1.9	1.6
Knitwear	9.0	4.6	5.5	8.9	15.7

Table A-3

Export composition of ODEs, 1965-1985
(Percentage)

Product group	1965	1970	1975	1980	1985
Grey yarn	8.9	16.6	12.5	10.0	8.9
Processed yarn	1.7	3.0	1.7	0.3	0.1
Synthetic yarn	0.2	0.5	1.1	1.6	1.4
Natural fabrics	57.0	41.6	26.6	18.6	13.4
Synthetic fabrics	1.7	4.1	3.5	5.3	4.8
Clothing	16.4	16.9	33.3	41.6	45.3
Accessories	5.7	7.4	4.6	4.5	3.4
Knitwear	8.4	9.9	16.7	18.1	22.7

Import composition of ODEs

Grey yarn	4.7	4.5	1.9	3.0	1.5
Processed yarn	5.0	4.4	2.3	0.5	0.3
Synthetic yarn	9.5	16.6	18.7	15.9	17.4
Natural fabrics	42.2	24.7	15.9	15.1	15.0
Synthetic fabrics	13.6	24.6	32.9	30.1	32.9
Clothing	13.7	13.8	15.4	21.9	19.8
Accessories	3.7	3.6	3.8	3.9	3.8
Knitwear	7.6	7.8	9.1	9.6	9.3

Table A-4Data base for Tables A-1 to A-3 and Graph 1 to Graph 9

Product group	SITC <u>a/</u>
Grey yarn	651.3
Processed yarn	651.4
Synthetic yarn	651.6
Natural fabrics	652.0
Synthetic fabrics	653.5
Clothing	841.1
Accessories	841.2
Knitwear	841.4

Source: UNIDO Data Base.

a/ UN Standard International
Trade Classification, Rev.1.