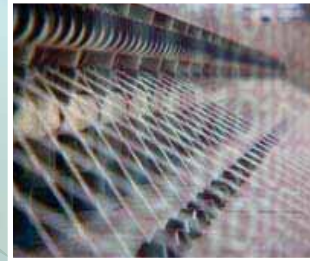




# UNVEILING PROTECTIONISM: Regional Responses to Remaining Barriers in the Textiles and Clothing Trade



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**ECONOMIC AND SOCIAL COMMISSION FOR ASIA AND THE PACIFIC  
COLOMBO PLAN SECRETARIAT**

**UNVEILING PROTECTIONISM:  
REGIONAL RESPONSES TO REMAINING BARRIERS IN  
THE TEXTILES AND CLOTHING TRADE**



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**UNVEILING PROTECTIONISM: REGIONAL RESPONSES TO REMAINING  
BARRIERS IN THE TEXTILES AND CLOTHING TRADE**

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## Contents

	<i>Page</i>
<b>Abbreviations and acronyms</b> .....	xii
<b>Acknowledgements</b> .....	xiv
<b>List of contributors</b> .....	xv
<b>Overview</b> .....	xviii

### PART ONE

#### Chapter

<b>I. Textile and clothing industry: Adjusting to the post-quota world</b> <i>Ratnakar Adhikari and Yumiko Yamamoto, UNDP Regional Centre, Colombo</i> .....	3
<b>II. Economic impacts of the phase-out in 2005 of quantitative restrictions under the Agreement on Textiles and Clothing</b> <i>Margit Molnar and Przemyslaw Kowalski, OECD</i> .....	49
<b>III. Status of protection facing exporters of textiles and clothing from Asia and the Pacific in the North and South markets</b> <i>William E. James, Centre for Strategic and International Studies, Jakarta</i> .....	85
<b>IV. Does China have a competitive advantage in the low-end garment industry? A case study approach</b> <i>Bala Ramasamy and Matthew Yeung, China-Europe International Business School, Shanghai</i> .....	111
<b>V. Indian textile and apparel sector: An analysis of aspects related to domestic supply and demand</b> <i>Badri Narayanan G. Centre for Global Trade Analysis, Purdue University</i> .....	129
<b>VI. Indian textile and clothing sector poised for a leap</b> <i>J.N. Singh, Textile Commissioner, India</i> .....	157
<b>VII. Textiles and clothing trade post-ATC: Can trade facilitation help?</b> <i>Noordin Azhari, ESCAP</i> .....	171

## Contents *(continued)*

Page

### PART TWO

#### COUNTRY REPORTS ON COPING WITH RESTRICTIVE POLICIES AND MAINTAINING COMPETITIVENESS

<b>I. Bangladesh</b>	
<i>Towfique G. K .M. Hassan, Bangladesh Textile Mills Association .....</i>	187
<b>II. China</b>	
<i>Hongwei Ma, Ministry of Commerce .....</i>	199
<b>III. Indonesia</b>	
<i>Usman Ade Sudradjat, Indonesian Textile Association .....</i>	204
<b>IV. Kazakhstan</b>	
<i>Tatyana Zhdanova, Chamber of Commerce and Industry .....</i>	213
<b>V. Mongolia</b>	
<i>Chuluunbat Tsetsegmaa, Textile and Garment Industry Council .....</i>	220
<b>VI. Myanmar</b>	
<i>Myint Soe, Myanmar Garment Manufacturers Association .....</i>	226
<b>VII. Nepal</b>	
<i>Kiran P. Saakha, Garment Association Nepal .....</i>	232
<b>VIII. Thailand</b>	
<i>Virat Tандаеchanurat, Thailand Textile Institute .....</i>	239

## Contents *(continued)*

### LIST OF TABLES PART ONE

	<i>Page</i>
<b>Chapter I</b>	
1. Textile exports of selected economies, 1990 and 2004-2005 .....	6
2. Clothing exports of selected economies, 1990 and 2004-2005 .....	7
3. Share of the value of European Union imports of textile and clothing products, 2004-2006 .....	9
4. Share of the value of United States imports of textile and clothing products, 2004-2006 .....	10
5. Top five trade and clothing products imported by the United States from Mongolia, 2004-2005 .....	13
6. Top five Nepalese export products to the European Union and United States markets, 2004-2005 .....	15
7. Discriminatory tariffs charged by the United States on apparel imports .....	20
8. Trading across borders .....	25
9. Sri Lankan exports of women's undergarments .....	37
<b>Chapter II</b>	
1. Cost structure of firms in the textiles and wearing apparel sectors .....	51
2. World exports of textiles and clothing 2003-2005 .....	51
3. Textiles exports as a percentage of total merchandise exports, 2005 .....	52
4. Pace of quota abolition .....	55
5. Top 10 destinations of Honduran apparel exports .....	72
<b>Chapter III</b>	
1. ASEAN Textile and Clothing Shipments to the US Market (value in Million US\$) .....	95
2. ASEAN Textile and Clothing Shipments to the US Market (volume in million square meter equivalents) .....	96
3. SAARC Members Textile and Clothing Shipments to the US Market (Value in Million US\$) .....	97
4. SAARC Members Textile and Clothing Shipments to the US Market (Volume in Million Square Meter equivalents) .....	98

## Contents *(continued)*

	<i>Page</i>
5. World Textile and Clothing Shipments to the US Market (value in Million US\$) .....	99
6. World Textile and Clothing Shipments to the US market (volume in million square meter equivalents) .....	100
7. China Textile and Clothing Shipments to the US (value in Million US\$) .....	101
8. China Textile and Clothing Shipments to the US (volume in million square meter equivalents) .....	102
9. ASEAN Textile and Clothing market Shares in the US Market in Value (%) .....	103
10. ASEAN Textile and Clothing Market Shares in the US market in Volume (%) .....	103
11. SAARC Textile and Clothing Market Shares in the US Market in Value (%) .....	104
12. SAARC Textile and Clothing Market Shares in the US Market in Volume (%) .....	104
13. Major Preferential Suppliers Performance in China Restricted Items in the US Market (Value in Million US\$) .....	105
14. Major Preferential Suppliers Performance in China Restricted Items in the US Market (Volume in Million Square Meter Equivalents) .....	106
15. Major Preferential Suppliers Textile and Clothing Market Shares in the US Market in Value (%) .....	107
16. Major Preferential Suppliers Textile and Clothing Market Shares in the US Market in Volume (%) .....	107
17. China Textile and Clothing Market Shares in the US Market in Value (%) .....	108
18. China Textile and Clothing Market Shares in the US Market in Volume (%) .....	108
 <b>Chapter IV</b>	
1. China's leading industries by gross industrial output, 1999 and 2005 .....	114
2. China's garment exports, 1996 and 2006: selected items .....	115
3. Ownership composition of China's textile and garment industries .....	117
4. Leading Provinces in the textile industry in China .....	118
5. Chinese regional contributions to textile and garment exports and imports, 2005 .....	118
6. Exports of shirts by China to the United States .....	125



## Contents *(continued)*

	<i>Page</i>
<b>Chapter V</b>	
1. Average annual growth rates in the organised textile and apparel sector in India (1993/94 prices) .....	132
2. Trends in some ratios of capital (K), output (Y) and employment (N) .....	132
3. Trends in effective protection rates for different subsectors in the Indian textile sector .....	133
4. Salient features of the organised textile and apparel sector in India: Recent trends .....	137
5. Shares of various subsectors in different sectors for 2000/01 (current prices) .....	139
6. Annual average growth rates in the unorganized textile sector (based on 1993/94 prices) .....	141
7. Trends in partial productivity measures in the unorganized textile sector in India .....	142
8. Growth trends in partial productivity measures in the unorganized textile sector of India .....	143
9. Trends in per capita consumption expenditures and shares on clothing in rural India (current prices) .....	148
10. Trends in per capita consumption expenditures and share of clothing in urban India (current prices) .....	148
11. Indian textile and apparel subsectors – trends in growth of supply and demand .....	149
12. Trends in excise structure of various textile staple fibres in India, 1992-2005 .....	150
13. Trends in excise structure of various textile yarns based on filaments and staple fibres in India, 1992-2005 (percentage ad valorem) .....	151
14. Trends in excise structure of various textile fabrics in India, 1992-2005 .....	152
15. Elasticities of various textile commodity groups with regard to prices and textile expenditure .....	153
16. Credit applications that were received and disbursed under TUFs, 2004/05 .....	155
<b>Chapter VI</b>	
1. India's position in the world textile economy .....	158
2. Transaction cost in Indian industries .....	169
<b>Chapter VII</b>	
Procedural hurdles in trading in selected regions .....	173

## Contents *(continued)*

### PART TWO

#### Bangladesh

1. Growth pattern of primary textile mills in Bangladesh .....	188
2. Structure of Bangladesh textiles and clothing sector, 2006 .....	188
3. Ownership and size of mills .....	189
4. Annual production of yarn and fabrics .....	189
5. Exports of textile products .....	190
6. Export trend of woven garments .....	190
7. Export trends for knitwear .....	191
8. Knitwear exports by destination .....	191
9. Woven garment exports by destination .....	192
10. Home textiles export trends .....	192
11. Textile fabric exports trends .....	192
12. Total demand-production gap between fabrics for domestic and export-oriented RMG Units .....	194
13. Projected demand for fabrics for domestic and export-oriented RMG units, 2004/05 to 2008/09 .....	195
14. Yarn demand-production gap .....	195
15. Estimated Investment Requirements in Primary Textile Sector by 2008/09 .....	196

#### China

Production of main T&C categories in 2006 .....	199
---	-----

#### Indonesia

1. Net textile industry export earnings and growth rates compared with import expenditures, 1996-2005 .....	205
2. Labour absorption by the textile industry .....	206
3. Indonesian textile and clothing industry highlights .....	207
4. Indonesian fibre industry highlights .....	207
5. Polyester filament yarn .....	208
6. Indonesian weaving, knitting and finishing subsectors .....	209
7. Machinery up to 20 years old .....	210
8. Indonesian spinning/yarn subsector highlights .....	211
9. Spinning machinery, Asia-Oceania .....	211
10. Profile of other textile industry .....	212

## Contents *(continued)*

	<i>Page</i>
<b>Kazakhstan</b>	
Production output in Kazakhstan .....	214
<b>Mongolia</b>	
1. Total number of T&C product exporters .....	221
2. Total value of T&C products by CMP price .....	221
<b>Myanmar</b>	
1. Number of operational garment firms in Myanmar, 1997-2004 .....	227
2. Major importers of Myanmar garments .....	228
3. Productivity of garment firms in Myanmar, 2004 .....	229
4. Competitiveness of garment firms in Myanmar .....	229
5. Share of China and India in the global T&C market, 2004 .....	230
<b>Nepal</b>	
1. Apparel exports from Nepal to international markets and India .....	233
2. Share of apparel in overseas export and total national export of Nepal .....	234
3. Share of Nepalese garment exports to the Quad countries .....	234
<b>Thailand</b>	
1. Number of registered factories in operation .....	239
2. Number of employees by subsector .....	240

## Contents *(continued)*

### LIST OF FIGURES PART ONE

	<i>Page</i>
<b>Chapter II</b>	
I. EU25 imports of textiles by country and region, 2005 and 2006 .....	59
II. EU25 imports of apparel by country and region, 2005 and 2006 .....	60
III. United States imports of textiles by country and region, 2005 and 2006 .....	61
IV. United States imports of apparel by country and region, 2005 and 2006 .....	62
V. Positioning strategies of selected major competitors of China in the United States market, 1997-2006 .....	65
VI. Polarization of necktie prices .....	66
VII. Textile trade specialization of China vis-à-vis its top 10 competitors .....	73
VIII. Clothing trade specialization of China vis-à-vis its top 10 competitors .....	74
IX. Producers previously restricted by quotas consolidate their export markets .....	75
X. Top 10 destinations for exports by Madagascar in 2005 .....	78
<b>Chapter IV</b>	
Export value of China's textile and garment industry, 1996-2005 .....	115
<b>Chapter V</b>	
I. Employment trends in non-mill textile sector .....	135
II. Employment trends in different subsectors of the textile wet processing sector .....	135
III. Employment trends in textile wet processing sector .....	136
IV. Employment trends in subsectors of the textile sector .....	136
<b>Chapter VI</b>	
I. Sanctioned investments in India's textile and clothing sector .....	159
II. Production of spun yarn in India .....	160
III. Production of cloth in India .....	161
IV. Growth in Indian textile and clothing exports .....	162
V. Direction of exports, 1995 and 2005 .....	163
<b>Chapter VII</b>	
Data repetition in trade documentation .....	173

## Contents *(continued)*

### PART TWO

	<i>Page</i>
<b>China</b>	
Textile and apparel exports from China .....	200
<b>Indonesia</b>	
I. World's 15 leading textile exporters, 2004 .....	206
II. World production of man-made fibres .....	209
<b>Mongolia</b>	
I. Share of foreign investment in the Mongolian T&C sector .....	220
II. Percentage of textile products in total export .....	222
III. Total value of textile and garment products by FOB price .....	222
<b>Myanmar</b>	
I. Number of operational garment firms in Myanmar, 1997-2004 .....	227
II. Major importers of garments from Myanmar in terms of value (US\$ million) .....	228
III. Garment export value, 1995-2005 .....	230
<b>Thailand</b>	
Textile and garment production and consumption, 2003-2006 .....	241

## Abbreviations and acronyms

ACP	African, Caribbean and Pacific group
ADB	Asian Development Bank
AEC	ASEAN Economic Community
AGOA	African Growth and Opportunity Act
ASEAN	Association of Southeast Asian Nations
ATC	Agreement on Textiles and Clothing
BIMSTEC	Bay of Bengal Initiatives for Multi-Sectoral Technical and Economic Cooperation
CAFTA	Central American Free Trade Agreement
CEPT	Common Effective Preferential Tariff
CITA	United States Committee on the Implementation of the Textile Agreement
CMP	cutting, making and packing
DMEs	directory manufacturing establishments
EBA	Everything but Arms
EPZ	export processing zones
ESCAP	Economic and Social Commission for Asia and the Pacific
EU25	European Union 25 group of member States
FDI	foreign direct investment
FTA	free trade agreement
FTZ	free trade zone
GATT	General Agreement on Tariffs and Trade
GDP	gross domestic product
GPZ	Garment Processing Zone
GTAP	Global Trade Analysis Project
ITCB	International Textiles and Clothing Bureau
LDCs	least developed countries
LTA	Long-Term Agreement Regarding International Trade in Cotton Textiles

## **Abbreviations and acronyms** *(continued)*

MFA	Multi-Fibre Arrangement
MFN	most favoured nation
MNE	multi-national enterprise
NAFTA	North American Free Trade Agreement
NIC	newly industrialized country
NDMEs	non-directory manufacturing establishments
NSSO	National Sample Survey Organisation
NTMs	non-tariff measures
OAMEs	own account manufacturing enterprises
OECD	Organisation for Economic Co-operation and Development
OPAs	outward processing arrangements
OPT	outward processing trade
PTA	preferential trade agreement
REACH	Registration, Evaluation and Authorisation of Chemicals System
RMG	ready-made garments
SAARC	South Asian Association for Regional Cooperation
SABF	South Asian Business Forum
SAFTA	South Asian Free Trade Area
TLP	Tariff Liberation Programme
TMB	Textile Monitoring Body of the World Trade Organization
TPA	Trade Promotion Act
TUFS	Technology Upgrading Fund Scheme
UNDP	United Nations Development Programme
UNIDO	United Nations Industrial Development Organization
VER	voluntary export restraint
WRAP	Worldwide Responsible Apparel Production
WTO	World Trade Organization

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# OVERVIEW

*By Mia Mikic*

## Introduction

On 1 January 2005, international trade in textiles and clothing finally became part of the multilateral trading system, but producers/exporters are not breathing any easier. The trading environment for this sector has since been changing more rapidly than ever. Competitive pressures have intensified in the largest importing markets, and exporters of textiles and clothing face heavy pressure to cut prices. For countries where this sector generates employment and foreign exchange revenues, this has spelled further difficulties for development prospects. These are typically least developed countries with a lack of financial, technological and other resources for absorbing a large, unskilled and predominantly female labour force employed by textiles and clothing.

There are also clear signs that other forms of protectionism may be on the rise in some developed countries, which are the major importing markets. Therefore, to sustain previous trends of production and exports of textile and clothing from developing countries of the region, recourse should be found in alternative but complementary strategies through regional cooperation. The creation of regional supply chains through the integration of markets, and gender-differentiated trade adjustment financing to compensate losers (most of whom would be women) should be pursued. This would enable key stakeholders to formulate appropriate policy responses, including gender-differentiated responses, and to more effectively participate in negotiations on future policy frameworks relevant to this sector.

Given the relevance of the textile and clothing sector to its member countries, the ESCAP secretariat undertook the implementation of a project under the theme, "Weaving the fabric of regional cooperation for a competitive garment exports: A post-quota trading environment", which was supported financially by the Government of China and the Colombo Plan secretariat. The overall project objective has been to improve the effectiveness of responses by participating ESCAP member country governments to the changing trading environment in the textile and clothing sector, by formulating policies for improved intraregional trade and investment flows.

Phase 1 of the project brought together multi-stakeholders from the region as well as from outside the region for a workshop at the Guanghua Business School in Beijing in 2005 to discuss the early impact of elimination of the Multi-Fibre Arrangement (MFA) and the changes in the patterns of supply, demand and trade. That dialogue suggested a follow-up seminar with emphasis on the development of a vertical and horizontal sectoral integration within the region. Thus, the focus of Phase 2 of the project was on exploring deeper regional cooperation in trade, investment and production in the textiles and clothing sector. Towards that end, two research studies were produced (and are included in this publication chapters III and IV) and the "Regional Dialogue on Restrictive Policies and Measures in the Textile and Clothing Trade" was organized in 2007 at the China-Europe International Business School in Shanghai. Some of the papers and most of the country reports presented in that meeting have been integrated into this volume.

While China remains the focus of any analysis of the textile and clothing sector, it is important to note that since 2006, China has been diversifying its export structure in order to reduce the dependence on textiles and clothing. As discussed in this

publication, many developing countries in the region have recognized this as an opportunity to defend, if not increase, their own market share, particularly through intraregional cooperation in investment and production in this sector. However, some economies – as is evident from the country reports in the Part Two of this publication – still consider China to be a tough competitor.

### Chapter content

As stated in chapter I by Ratnakar Adhikari and Yumiko Yamamoto, and woven into other chapters and country reports, textiles and clothing have been the instrumental sector in the industrialization of many developing countries. Textiles and clothing production provided all the main features necessary to boosting industrialization in those countries:

- (a) A technology level that was not too demanding;
- (b) Reliance on an unskilled or semi-skilled workforce and able to absorb extensive female labour;
- (c) No other significant entry barriers such as high capital outlays; and
- (d) While remaining one of the most protected industries in the developed markets, it also allowed for the formation of vertical supply chains.

Adhikari and Yamamoto illustrate this last point nicely by saying “...entrepreneurs in countries restricted by quotas found ways to exploit the [quota] system. They established factories in countries with low levels of quota utilization and in some instances even helped in the industrialization process of those countries.” Unfortunately, in many of these countries, the increased capacity to export did not translate into higher-paid employment or better working conditions. In a number of countries, the human development aspect of the expansion of the textile and clothing sector has not been very encouraging. Nevertheless, many Asia-Pacific countries based their industrialization and exports on this sector, and had high expectations from the replacement of the quota-based MFA system with the GATT-consistent regime in the form of the Agreement on Textiles and Clothing in 2005.

The three years that have elapsed since the passing of the MFA is still too short a period for drawing definite conclusions. However, as discussed in chapter II by Margit Molnar and Przemyslaw Kowalski, some reshaping of the global textile and clothing production and investment is already starting to take place. “Exporters with low costs and high productivity – such as China, India and Viet Nam – have succeeded in benefiting from enlarged markets, while the phase-out has brought about challenges for OECD and small country producers”.

Even with special contingent protection, the changes in the European Union and the United States markets that were brought about by demise of the MFA have been significant. In addition to increased imports, the geographical structure of imports is changing in favour of China, Viet Nam and, to a lesser degree, Bangladesh, Cambodia and Sri Lanka at the expense of Mediterranean partners for Europe, and NAFTA or CAFTA for the United States. Increasing quotas on Chinese imports put increasing pressure on other suppliers. Strategies adopted by countries to deal with these shocks were different, and varied in effectiveness.

The analysis in chapter II explains the differences between specialization, reorientation of markets and relocation overseas, which have been the main strategies chosen for survival. Specialization (vertical and horizontal) was adopted by developed and developing countries alike. Reorientation of markets was followed mostly by developing countries while relocation was the choice made by developed country producers.

Those strategies employed in Asian economies must have worked, as predictions of the collapse of all Asian suppliers except China obviously did not come true, William James notes in chapter III. However, restructuring is not over yet and there are still challenges to be faced by all exporters. He argues that a threat to the future development of the textile and clothing industries within the Asia-Pacific region exists in the proliferation of preferential trade agreements involving major industrial markets and developing countries. He claims that the agreements between an Asian partner and non-regional partners tend to provide more favourable market access in textiles and clothing than do agreements involving two Asian partners. In addition, rules of origin tend to be more restrictive for intra-Asian trade partners than for non-regional partners. Thus, intra-regional PTAs create a denser “noodle bowl” environment for Asian suppliers of textiles and clothing products.

Most of the protectionist measures have been aimed at producers and exporters from China, as they are deemed the most competitive. The sharp increases in exports of various textile and clothing products from China since 2005 support this view of that country’s pre-eminent position as the “tailor of the world”. Studies of the sources of competitive advantages of China have so far mostly focused on low labour costs and large-scale production capacity. Chapter IV summarizes research undertaken by Bala Ramasamy and Mathew Yeung into the role of restrictive trade policies, and their impacts at firm level, in a search for further explanations of the competitive advantages of China. They apply a case study approach, comparing two garment manufacturers in Beijing and Jakarta, and find that the future of China lies in high-end products that involve fabrics, design and technology that are more sophisticated. The chapter also identifies the fact that for producers in competing countries, greater linkages with Chinese producers in forming supply chains may be critical.

India is another highly competitive Asian exporter. While the textile and clothing sector of India has been the second largest employer after agriculture, and thus remains crucial to India’s efforts to reduce poverty, the sector is facing many problems. These problems are analysed in chapters V and VI.

In chapter V, Badri Narayanan G. focuses on some of the major domestic issues that encompass supply and demand in the sector. On the supply side, consideration is given to performance and employment, both in the organized and unorganized segments of the sector, by looking at productivity measures, employment, capital and output. On the demand side, the focus is on fiscal and tariff policies.

In chapter VI, J. N. Singh takes a forward-looking position. He discusses the pitfalls of the static scenario of the Indian textile sector and its position in the world textile economy. He reviews supportive government policies for facilitating the growth of the sector and the industry’s responses to those policies. Recent trends such as consolidation and integration, non-differentiation between exports and supply for domestic market, entry of large retail buyers and increased presence at foreign fairs are all considered. Singh also tackles further steps needed to improve Indian competitiveness globally.

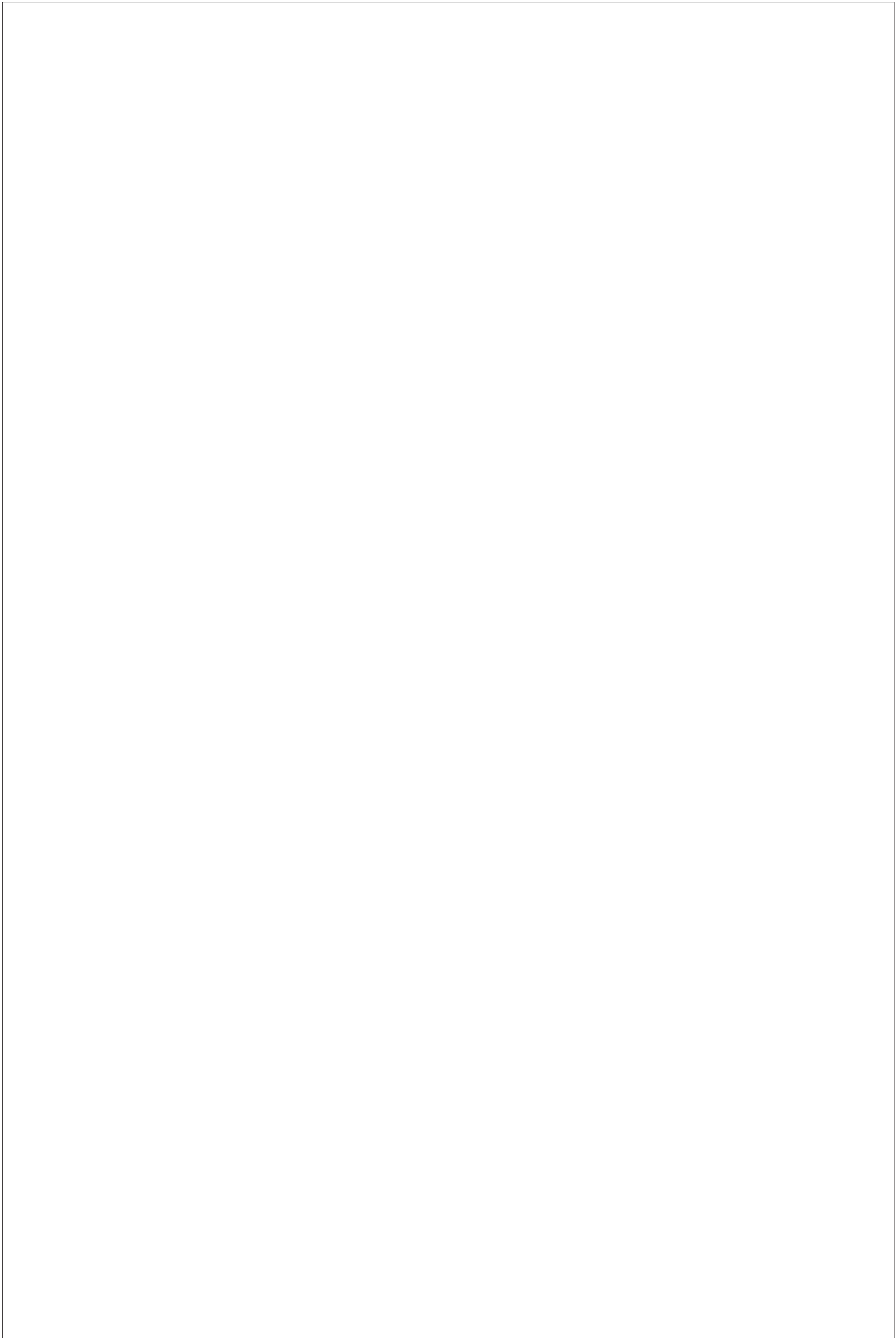
Trade facilitation is increasingly being seen as a universal solution to all problems that prevent producers from succeeding in getting their products to consumers, a viewpoint from which the textile and clothing sector is not excluded. While chapter I and chapter III each tackle some trade facilitation issues, chapter VII by Noordin Azhari systematizes the role that trade facilitation might play in the sector and the region. Indeed, he agrees that in the post-ATC environment, the time taken to reach markets has become an important factor in determining whether a textile and clothing company can sustain, or remain within the global supply chain. He identifies a set of actions to be undertaken at the global, national and regional levels to improve the efficiency and competitiveness of textile and clothing producers.

Trade facilitation reforms in the Asian and Pacific developing countries within the context of textiles and clothing can help to promote backward and forward linkages as well as investment, and can assist the industry in terms of meeting shorter lead-times, thus reducing transaction costs. Azhari outlines the ESCAP role in improving area of trade facilitation and notes that the main emphasis needs to be placed on promoting the simplification, harmonization and standardization of procedures and related documentary requirements in international trade, thus reducing transaction costs and time.

ESCAP is assisting its members in developing national trade facilitation plans of action, based on the identification of the needs and priorities of individual countries. It is encouraging the establishment of, and providing support to, existing national coordination bodies for facilitating trade and transport. Through its own work and in contacts with various stakeholders, to share ideas and best practices on how to reduce trade transaction costs. In addition, ESCAP is acting to increase the awareness and implementation capacity of global and regional legal arrangements related to trade facilitation. In this regard, ESCAP adopts an inclusive approach to trade facilitation by ensuring that all stakeholders are involved and consulted, i.e., the public sector (all relevant government agencies), the private sector (manufacturers and service providers) and civil society.

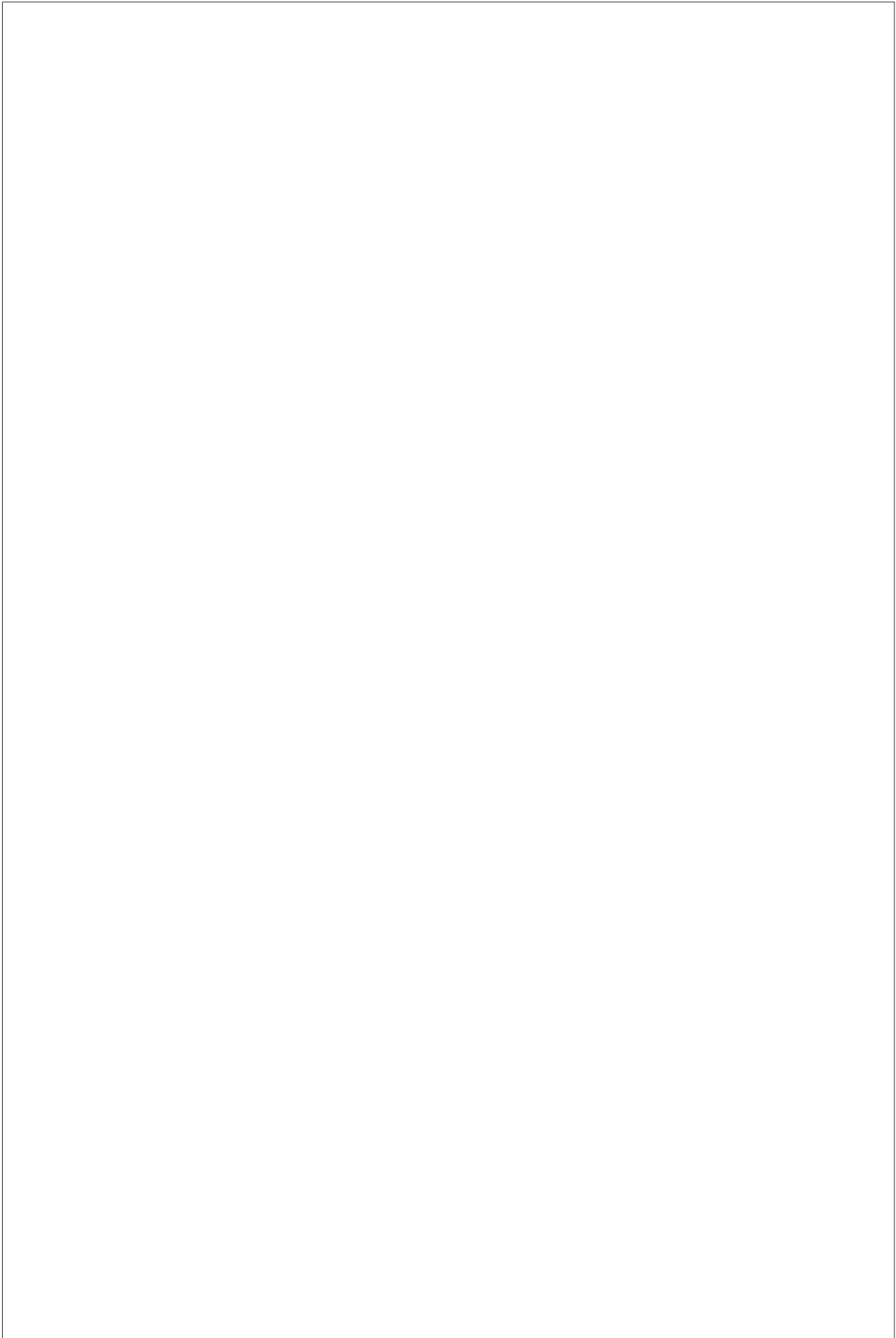
### **Country reports**

The country reports included in this publication have all been prepared by industry specialists from the following countries: Bangladesh, China, Indonesia, Kazakhstan, Mongolia, Myanmar, Nepal and Thailand.





# **PART ONE**



## I. TEXTILE AND CLOTHING INDUSTRY: ADJUSTING TO THE POST-QUOTA WORLD\*

*By Ratnakar Adhikari and Yumiko Yamamoto*

### Introduction

It is just over two years since the phasing-out of the global system of quota controls that governed trade in the textile and clothing (T&C) industry. That industry generates US\$ 479 billion in world exports and accounts for a 4.6 per cent share in global merchandise exports (World Trade Organization, 2006a). The quota system and policy developments since its demise illustrate the highly selective and targeted nature of production and market relations in the industry. Although 1 January 2005 was supposed to mark the end of the quota system for all countries, and was expected to unleash massive adjustment challenges for a number of countries, quota elimination has shown a mixed result so far. Moreover, those countries that have lost out the most had seen their exports decline earlier, which means that their dismal performance cannot merely be ascribed to the quota phase-out.

Several countries that had been projected by numerous studies to lose out in the post-quota world not only managed to hold on to their past gains, but also achieved significant growth in their export earnings. This is mainly because of the re-imposition of quotas on T&C exports from China, not only by the developed countries but also by some developing countries that were making use of temporary safeguard measures as agreed to by China during the process of its accession to WTO.

Most analysts predict that the situation will change after the phasing-out of the safeguards measures, which will expire in 2008. At the same time, the entry of Viet Nam into WTO on 11 January 2007, which has enabled the country to compete in the global T&C market without any quantitative restrictions on T&C exports, means that the competitive pressure is likely to become intense for the small and marginal players. Therefore, the real adjustment challenge has yet to begin.

Textiles and clothing comprise a unique industry in the global economy mainly for three reasons. First, most developed countries of today as well as newly industrialized countries (NICs) have used this industry as the springboard for their development journey; even some least developed countries (LDCs) have been able to step onto the development ladder on the basis of their T&C industry. Millions of people, mostly women, are employed in this industry in most of these economies.

Second, this industry has very low entry barriers; entry does not require huge capital outlay and factories can be set up that employ workers with relatively low skills. Therefore, this industry is characterized by high competition intensity.

Third, this industry is the most protected of all manufacturing industries in the global economy, both in developed and developing countries. Protectionist interests have been extremely ingenious in creating new protectionist instruments in the past 50 years.

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\* The text in this chapter was first published as a chapter under the same title in the book "Industrial Development for the 21st Century: Sustainable Development Perspectives", United Nation, New York, 2007. The authors gratefully acknowledge the helpful comments provided by Manuel F. Montes (UN-DESA).

Taking as a precedent the imposition in 1957 of voluntary export restraints (VERs) on the exports of cotton textiles from Japan to appease the domestic textile industry in the United States, the regime of protection in this industry was institutionalized in 1974 with the introduction of the Multi-fibre Arrangement (MFA). This governed international trade in textiles and clothing for almost two decades. This arrangement enabled developed countries to bilaterally negotiate quotas with supplier countries, taking into account their competitiveness and the perceived threat to the domestic interests in the importing countries. During the Uruguay Round of multilateral trade negotiations (1986-1993), the international community decided to integrate the MFA into the new Agreement on Textiles and Clothing (ATC), which featured a clear timetable for phasing out the quota system within a 10-year period, starting on 1 January 1995 (Adhikari and Weeratunge, 2007).

Even during the heyday of the quota system, characterized by a distorted global market for T&C products, entrepreneurs in countries restricted by quotas found ways to exploit the system. They established factories in countries with low levels of quota utilization and in some instances even helped in the industrialization process of those countries. For example, Korean companies established factories in Bangladesh, the Caribbean and sub-Saharan Africa, Chinese companies established factories in several Asian and African locations, Indian companies in Nepal; even relatively minor players in the global market such as Sri Lankan and Mauritian businesspersons established factories in Maldives and Madagascar, respectively, to overcome quota restrictions. While the indigenization of the industry took place in some countries (e.g., Bangladesh and Nepal) due to the entry of the local entrepreneurs, in other countries (e.g., Maldives) the industry itself was wiped off the industrial map once the foreign investors pulled out.

Against this backdrop, the objective of this chapter is to discuss the current state of play in the global T&C market, identify the factors shaping and influencing the evolution of this industry including emerging trends, and provide some policy recommendations for the developing countries in order to help them not only survive in the post-quota regime, but also exploit the opportunities created by the increased competition in the industry.

Section A summarizes the trade flows in the post-quota world and discusses the human development implications of the quota phase-out. Section B discusses challenges facing developing countries and LDCs in using the T&C industry as a springboard for their development efforts. Section C deals with emerging issues in the areas of T&C trade at the global level, which offers various opportunities as well as challenges to the T&C industry in the developing countries. Section D analyses the efforts made by various developing countries to overcome the emerging challenges and critically evaluates the sufficiency of such measures in addition to proposing some measures that could help these countries minimize the human development fallout of the phasing out of quotas. Section E provides the conclusion.

#### **A. Trade flows in the post-Agreement on Textiles and Clothing period and their human development implications**

Textiles and clothing are among the first manufactured products that an industrializing economy produces. They played a critical role in the early stage of industrialization in the United Kingdom of Great Britain and Northern Ireland, parts of North America, Japan and, more recently, in the export-oriented growth of the East Asian economies (Yang and Zhong, 1998). Hong Kong, China, the Republic of Korea and

Taiwan Province of China relied heavily on T&C products for their exports from the 1950s to the mid-1980s. As these economies scaled up their industrial development toward more capital-intensive and high-tech manufacturing products, South-East Asian and South Asian developing countries and LDCs started to join the race. For example, Bangladeshi clothing exports increased 10-fold over the past 15 years and the country is now one of the world's leading exporters of clothing (table 2). In Cambodia, clothing exports took off in the late 1990s (Adhikari and Yamamoto, 2006). The T&C share in total exports exceeds 70 per cent in these two economies (UNDP RCC, 2005a). As a result, the T&C exporters' group has diversified over time, and Asia has become a hub of manufacturing production. This transition period overlaps the time when the latecomers introduced their liberalization policies under structural adjustment programmes, acceded to WTO and/or undertook domestic reforms.

### 1. Trends in the global market

Table 1 shows exports of textiles from selected economies. Global textile exports reached a historical high of US\$ 203 billion in 2005, almost double the 1990 level of US\$ 104 billion. In broad terms, the immediate effect of the expiry of quotas in the textile industry was a gain for developing countries, and a loss for developed and semi-developed economies in Asia and the European Union. The growth of Chinese textile exports has been remarkable – increasing by 22.8 per cent from 2004 to 2005 – so that more than 20 per cent of textiles traded in 2005 originated in China. Other developing countries in Asia also experienced a significant growth during the first post-ATC year (e.g., exports from Bangladesh, India, Indonesia, Malaysia, Pakistan and Thailand grew at between 7 and 15 per cent). On the other hand, textile exports from the top producers in East Asia (Hong Kong, China; Japan; Republic of Korea; and Taiwan Province of China) decreased by 3 per cent to 4 per cent from 2004 to 2005. The European Union, the largest textile exporter in the world, also experienced a loss of exports in both intra- and extra-European Union markets, recording reductions of 7.2 per cent and 3.3 per cent, respectively. Textile exports from Asia to Africa, Europe and North America increased by 14 per cent to 20 per cent after the expiry of quotas (World Trade Organization, 2006a).<sup>1</sup>

Products from the top 15 economies account for more than 90 per cent of global textile exports while the top 15 economies accounted for 77 per cent to 83 per cent of global clothing exports in 2004-2005 (World Trade Organization, 2006a).<sup>2</sup> Table 2 shows the exports of clothing in selected economies. The clothing export market grew at a faster rate than textiles; the total value of clothing exports reached US\$ 276 billion in 2005, 150 per cent higher than the US\$ 108 billion recorded in 1990.

In 2005, Asia was supplying nearly half of the global T&C market; China's exports alone accounted for 27 per cent of world trade in clothing. During the first year of the post-ATC regime, the value of China's clothing exports went up from US\$ 62 billion in 2004 to US\$ 74 billion in 2005 – a growth rate of almost 20 per cent. Among the Asian economies listed in table 2, NICs<sup>3</sup> plus Macau, China, on the one hand, were

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<sup>1</sup> Table IV.70.

<sup>2</sup> Table IV.74 and table IV.82.

<sup>3</sup> The composition of 8.7 per cent growth of Hong Kong, China is domestic exports (11.1 per cent reduction from 2004 to 2005) and re-exports (18.3 per cent growth).

hit hard with a 14 per cent to 24 per cent reduction from 2004 to 2005. On the other hand, the remaining developing countries from South-East Asia and South Asia survived the first year of quota elimination, in spite of pessimistic predictions made before the expiry of ATC. The smaller clothing producers are not listed in table 2, however. As discussed below, Fiji, Mongolia and Nepal are struggling to survive, while Maldives has ceased to export T&C products.

Some developing countries in other regions, including the ones that have preferential market access to the United States, also recorded declines in 2005. Examples are: Morocco, which has a bilateral trade agreement with the United States, the Dominican Republic, El Salvador, Guatemala and Honduras, which are part of the

**Table 1. Textile exports of selected economies, 1990 and 2004-2005**

Region/economies (ranked by value in 2004)	Value (US\$ million)			Change (%)	Share of world exports
	1990	2004	2005	2004-2005	2005
World	104 354	195 378	202 966	3.9	
<b>Asia</b>					
China <sup>a</sup>	7 219	33 428	41 050	22.8	20.2
Hong Kong, China	8 213	14 296	13 830	3.3	6.8
Republic of Korea	6 076	10 839	10 391	4.1	5.1
Taiwan Province of China	6 128	10 038	9 706	3.3	4.8
Japan	5 871	7 138	6 905	3.3	3.4
India <sup>b</sup>	2 180	7 009	7 850	12.0	3.9
Pakistan	2 663	6 125	7 087	15.7	3.5
Indonesia	1 241	3 152	3 447	9.4	1.7
Thailand	928	2 563	2 764	7.8	1.4
Malaysia <sup>a</sup>	343	1 227	1 356	10.4	0.7
Singapore	903	977	916	6.3	0.5
Islamic Republic of Iran <sup>b</sup>	510	817	848	3.8	0.4
Macao, China	136	313	275	12.2	0.1
Philippines <sup>a</sup>	132	257	265	3.1	0.1
Bangladesh	343	204	221	8.4	0.1
Sri Lanka <sup>b</sup>	25	149	136	8.8	0.1
<b>European Union, North America</b>					
European Union 25		72 196	67 977	5.8	33.5
Intra-EU 25 exports		47 889	44 464	7.2	21.9
Extra-EU 25 exports		24 307	23 513	3.3	11.6
United States of America	5 039	11 989	12 379	3.3	6.1
Canada	687	2 431	2 464	1.4	1.2
Mexico <sup>a</sup>	713	2 071	2 133	3.0	1.1
<b>Other regions</b>					
Turkey	1 440	6 428	7 068	9.9	3.5
Brazil		1 244	1 326	6.5	0.7

Source: World Trade Organization, 2006a.

<sup>a</sup> Includes significant exports from processing zones.

<sup>b</sup> Includes Secretariat estimates.

**Table 2. Clothing exports of selected economies, 1990 and 2004-2005**

Region/economies (ranked by value in 2004)	Value (US\$ million)			Change (%)	Share of world exports
	1990	2004	2005	2004-2005	2005
World	108 129	259 147	275 639	6.4	
<b>Asia</b>					
China <sup>a</sup>	9 669	61 856	74 163	19.9	26.9
Hong Kong, China	15 406	25 097	27 292	8.7	9.9
India <sup>b</sup>	2 530	6 632	8 290	25.0	3.0
Bangladesh	643	5 686	6 418	12.9	2.3
Indonesia	1 646	4 454	5 106	14.6	1.9
Viet Nam <sup>b</sup>		4 441	4 805	8.2	1.7
Thailand	2 817	3 985	4 085	2.5	1.5
Republic of Korea	7 879	3 391	2 581	23.9	0.9
Pakistan	1 014	3 026	3 604	19.1	1.3
Sri Lanka <sup>b</sup>	638	2 776	2 877	3.6	1.0
Malaysia <sup>a</sup>	1 315	2 326	2 479	6.6	0.9
Philippines <sup>a</sup>	1 733	2 157	2 276	5.5	0.8
Cambodia <sup>b</sup>		1 981	2 199	11.0	0.8
Singapore	1 588	1 972	1 696	14.0	0.6
Macao, China	1 111	1 952	1 654	15.3	0.6
Taiwan Province of China	3 987	1 951	1 561	20.0	0.6
Myanmar	12	568	331	41.7	0.1
Islamic Republic of Iran <sup>b</sup>		222	273	22.6	0.1
<b>European Union. North America</b>					
European Union 25		76 887	80 354	4.5	29.2
Intra-EU 25 exports		57 759	57 737	0.0	20.9
Extra-EU 25 exports		19 128	22 617	18.2	8.2
Mexico <sup>a</sup>	587	7 490	7 271	2.9	2.6
United States	2 565	5 059	4 998	1.2	1.8
<b>Other regions</b>					
Turkey	3 331	11 193	11 818	5.6	4.3
Romania	363	4 717	4 627	1.9	1.7
Tunisia <sup>b</sup>	1 126	3 289	3 332	1.3	1.2
Morocco <sup>a</sup>	722	3 023	2 783	7.9	1.0
Honduras <sup>b</sup>	64	2 680	2 626	2.0	1.0
Dominican Republic <sup>a,b</sup>	782	2 121	1 908	10.0	1.0
El Salvador <sup>a,b</sup>	184	1 815	1 702	6.3	1.0
Guatemala	24	1 651	1 506	8.8	0.5
Mauritius <sup>a,b</sup>	607	939	745	20.7	0.3
Peru	120	883	1 057	19.7	0.4
Colombia	460	853	904	6.0	0.4
Madagascar <sup>b</sup>	7	552	530	4.0	0.2
South Africa	85	258	173	32.7	0.1

Source: World Trade Organization, 2006a.

<sup>a</sup> Includes significant exports from processing zones.

<sup>b</sup> Includes secretariat estimates.

United States-Caribbean Basin Trade Partnership Act (CBPTA); and Madagascar, Mauritius and South Africa, which receive preferential market access to the United States market under the African Growth and Opportunity Act (AGOA). Exports from Mauritius and South Africa started to decline in 2004 (World Trade Organization, 2006a) and even in the United States market despite the preferential arrangement under AGOA (Morris, 2006). The extent of the declines in exports of clothing from Mauritius and South Africa in 2005 were 20.7 per cent and 32.7 per cent, respectively. Exceptions were Peru and Colombia, which benefited from the preferential arrangement with the United States under the Andean Trade Promotion and Drug Eradication Act and experienced continuous growth over time.

## 2. Two years after the expiry of quotas

The 2006 data will help demonstrate the impacts of quantitative restrictions imposed on Chinese exports by the European Union and the United States in the summer of 2005. This section summarizes the growth of T&C exports from selected Asian and Pacific countries, based on the import data from two major markets – the European Union and the United States.<sup>4,5</sup> For the European Union, data for the first eight months of 2006 are available; for the United States, data for the first nine months of 2006 were available at the time of writing.

The main focus is on 12 selected Asian countries (Asian 12) – Bangladesh, Cambodia, China, India, Indonesia, the Lao People's Democratic Republic, Nepal, Pakistan, the Philippines, Sri Lanka, Thailand and Viet Nam. These countries can be grouped into four categories: (a) countries with a large production capability in both textile and apparel production (China and India); (b) countries that have limited production capability in both textiles and apparel (Indonesia, Pakistan, Thailand and Viet Nam); (c) middle-income countries that mainly have apparel production capability (Philippines and Sri Lanka); and (d) LDCs (Bangladesh, Cambodia, the Lao People's Democratic Republic and Nepal). The cases of Fiji, Maldives and Mongolia, which were severely hit by the expiry of ATC, are also discussed.

### *(a) European Union market*

Table 3 shows the market share and growth rates of imports from the Asian 12 and other major trading partners in European Union markets from 2004 to 2006. This analysis focuses only on imports from non-European Union member countries, i.e., extra-European Union trade. The share of extra-European Union trade in total imports of T&C products had increased to around 50 per cent in 2006 from 46 per cent in 2004.

Asia's share of European Union T&C imports continued to increase in the post-ATC period. In 2004, about 46 per cent of total European Union imports were from the Asian 12; that share now accounts for more than half of European Union imports of

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<sup>4</sup> Analysis based on the countries' export data is ideal; however, the disaggregated export data of many countries in the region are not available in a timely manner and the period of coverage based on the calendar/fiscal year and timing of releasing data differ country by country.

<sup>5</sup> Data are compiled by the Harmonized Commodity Description and Coding System (HS) at 6-digit and 10-digit levels. Agricultural raw materials such as silk, cotton, wool and vegetable fibres are excluded from HS 50-53. European Union data from HS 54 to HS 63 include trade data broken down at chapter level only, corrections due to erroneous codes, and confidential trade at chapter level.



**Table 3. Share of the value of European Union imports of textile and clothing products, 2004-2006**

(In percentages)

Country	European Union 25 imports				
	Market share			Growth rate	
	Annual	Jan.-Aug.	Annual	Jan.-Aug.	
	2004	2005	2006	2004-2005	2005-2006
<b>Extra-EU trade ranked by 2004 value of imports</b>	100.0	100.0	100.0	6.4	12.4
<b>Asian 12</b>	45.9	51.5	52.8	19.6	13.9
1 China	21.8	29.0	28.0	41.9	5.5
3 India	6.6	7.3	8.1	18.3	18.4
5 Bangladesh	5.8	5.2	6.1	5.0	34.8
8 Pakistan	3.4	2.8	2.9	13.2	14.9
10 Indonesia	2.6	2.2	2.3	9.6	30.8
15 Thailand	1.7	1.5	1.5	8.0	16.9
16 Sri Lanka	1.2	1.2	1.2	1.3	26.0
18 Viet Nam	1.1	1.1	1.4	6.2	56.9
22 Cambodia	0.8	0.7	0.6	8.3	22.7
29 Philippines	0.5	0.3	0.4	33.1	36.2
46 Lao PDR	0.2	0.2	0.2	0.7	10.8
53 Nepal	0.1	0.1	0.1	6.1	6.2
<b>Rest of the world</b>	54.1	48.5	47.2	4.7	10.8
2 Turkey	15.5	15.2	14.5	4.1	5.1
4 Romania	6.3	5.6	5.0	5.1	0.6
6 Tunisia	4.2	3.7	3.5	5.5	1.5
7 Morocco	3.8	3.3	3.2	6.9	2.6
9 Hong Kong, China	3.0	2.5	3.7	13.4	221.8
Extra-EU trade/ total EU trade	46.4	47.9	49.8		

Source: Eurostat external trade database (COMTEXT).

T&C products. In contrast, regions that have a trade agreement with the European Union have lost their market shares in spite of their preferential market access. For example, the market shares of Morocco, Romania, Tunisia and Turkey declined, albeit slightly, in the post-ATC years.

Between 2004 and 2005, European Union imports from the Asian 12 increased by 19.6 per cent; however, the gains were not distributed evenly in Asia. China was the leading contributor to this rapid growth, with India a distant second. European Union imports from China increased by US\$ 6.1 billion (42 per cent up), from US\$ 14.7 billion to US\$ 20.8 billion during the first post-ATC year while European Union imports from India increased by US\$ 800 million, from US\$ 4.4 billion to US\$ 5.2 billion, a growth rate of 18.3 per cent. Other Asian 12 countries (except Viet Nam and the Lao People's Democratic Republic) as well as the exporters in other regions (except Turkey) had a difficult start to the post-ATC regime, experiencing negative growth despite their benefits from several variants of the generalized system of preferences (GSP) and other preferential arrangements.

This trend changed noticeably in 2006 after the European Union and China came to an agreement on restricting Chinese T&C exports to the European Union in June 2005. Until 2008, the annual growth rate of 10 of the 35 categories of Chinese imports liberalized with the expiry of ATC is restricted to between 8 per cent and 12.5 per cent (European Commission, 2005). A comparison of the data for the first eight months of 2005 and 2006 reveals that European Union imports from China slowed to a 5.5 per cent growth rate whereas the rest of the Asian 12 countries (except Nepal) revived their exports to the European Union market at two-digit growth rates. Exporters in other regions (rest of the world in table 3) also resumed their exports to the 2004 level by experiencing 10.8 per cent growth for the first eight months of 2006.

(b) *United States market*

Table 4 shows the market share and growth rates of imports from selected Asian and Pacific countries, including the Asian 12 and other major trading partners, in the United States market from 2004 to 2006. The Asian 12 share of United States T&C imports continued to rise. In 2004, the Asian 12 share of United States T&C imports

**Table 4. Share of the value of United States imports of textile and clothing products, 2004-2006**

(In percentages)

Country/area	United States imports				
	Market share			Growth rate	
	Annual	Jan.-Aug.	2006	Annual	Jan.-Aug.
	2004	2005	2006	2004-2005	2005-2006
World	100.0	100.0	100.0	6.8	2.6
<b>Asian 12 ranked by 2004 value of imports</b>	41.3	49.8	54.8	28.6	11.8
China	17.2	24.2	26.4	50.2	7.3
India	4.6	5.4	5.8	26.0	11.7
Indonesia	3.0	3.3	4.1	18.9	27.2
Viet Nam	3.0	2.9	3.5	5.9	24.1
Pakistan	2.9	3.1	3.4	13.2	16.2
Thailand	2.5	2.4	2.3	1.3	1.5
Bangladesh	2.3	2.6	3.1	19.8	24.4
Philippines	2.1	2.0	2.2	1.0	11.8
Sri Lanka	1.8	1.8	1.8	5.9	1.2
Cambodia	1.7	1.9	2.2	19.9	26.8
Nepal	0.2	0.1	0.1	25.8	9.2
Lao PDR	0.0	0.0	0.0	34.3	303.2
CBI-Mexico	21.6	19.2	17.0	4.9	9.3
AGOA	2.1	1.6	1.4	16.5	13.2
Rest of the world	35.0	29.4	26.9	10.3	4.6
Fiji	0.1	0.0	0.0	77.7	81.5
Maldives	0.1	0.0	0.0	94.2	100.0
Mongolia	0.3	0.1	0.1	41.2	15.0

Sources: USITC, interactive tariff and Trade Data Web.

was 41.3 per cent; data for the first nine months of 2006 show that 54.8 per cent of the total United States imports are now from the Asian 12. In contrast, exporting countries from other regions – in fact, the majority of those countries that have preferential arrangements with the United States – continued to lose their market shares. For example, the share of the Caribbean Basin Initiative member nations plus Mexico declined from 21.6 per cent in 2004 to 17 per cent in 2006. The share of sub-Saharan African countries (in the category classified as AGOA) also declined from 2.1 per cent in 2004 to 1.4 per cent in 2006.

United States imports from the Asian 12, like in the European Union case, showed significant increase during the first year of the post-ATC regime. The growth rate of United States T&C imports from the Asian 12 between 2004 and 2005 was 28.6 per cent. China is the leading contributor to this growth with a 50 per cent growth rate from 2004 to 2005. In contrast to the trend in the European Union, other Asian 12 countries – except Nepal and Thailand – also showed steady growth even after the expiry of quotas. When United States imports from China declined to a growth rate of 7.3 per cent for the first three quarters of 2006 compared with the same period in 2005, the rest of the Asian 12 (except Nepal) either succeeded in exporting more or sustained their positive growth. As a result, United States imports from the Asian 12 continued to grow at 11.8 per cent for the first nine months of 2006, which is much higher than the 2.6 per cent growth rate of total United States imports.

The difference in the pattern observed between United States and European Union imports is that, in the United States market, exports from other regions did not revive after quantitative restrictions imposed by the United States on Chinese T&C imports.<sup>6</sup> This was the case for countries that have preferential arrangements with the United States. For example, United States imports from the Caribbean Basin Initiative countries plus Mexico decreased by 4.9 per cent from 2004 to 2005 and by 9.3 per cent from 2005 to 2006. In the case of sub-Saharan African countries, the reduction rate of United States imports was 16.5 per cent in 2005 and 13.2 per cent for the first nine months of 2006.

Smaller exporters from the Asia-Pacific region (e.g., Fiji, Maldives, Mongolia and Nepal) were hit hard by the elimination of quotas. In the case of Mongolia and Nepal, it was observed that some orders came back after the safeguards on Chinese imports. For Fiji and Maldives, United States imports continued to decline in 2006.

### **3. Human development impact of the expiry of quotas**

As discussed above, the ready-made garment (RMG) industry in the countries hit hard by the expiry of quotas (Fiji, Maldives, Mongolia and Nepal) was established by foreign investors whose T&C exports were bounded by the quota system. These small exporters have the disadvantage of being landlocked or small island economies as well supply-side problems, as discuss later in this chapter. The expiry of quotas triggered the closure of factories in those countries as foreign investors shifted production back to their own countries. As a result, thousands of jobs were lost in these countries.

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<sup>6</sup> For an example of quantitative restrictions by the United States, see United States Trade Representative, 2005.

(a) *Fiji*

Fiji's garment industry expanded rapidly in the late 1980s and the 1990s after obtaining preferential market access to Australia and New Zealand under the 1981 South Pacific Regional Trade and Economic Co-operation Agreement, with the restriction of using 50 per cent locally manufactured fabric and granting a 13-year tax holiday and other benefits to companies exporting 70 per cent or more under the 1987 Tax Free Factories scheme. The latter attracted foreign investors to open production facilities in Fiji. Moreover, the 1991 Import Credit Scheme allows Australian fabrics to be shipped to Fiji at competitive prices for production of garments that will be re-exported to Australia. Furthermore, Fiji enjoyed quotas from the United States under the MFA. The number of tax-free garment factories had risen from 27 in 1988 to 88 by the end of 1991 (Harrington, 2000).

In 2000, the industry employed nearly 20,000 people, more than 70 per cent of them women. About two-thirds of manufacturing jobs were provided by the garment industry. Exports peaked at F\$ 322 million (US\$ 163 million) in 1999, which accounted for more than 30 per cent of total exports and 11 per cent of GDP (Storey, 2004). The coup in 2000 triggered the downfall of Fiji's garment exports, leading to the closure of a dozen factories during 2002 and retrenchment of up to 6,000 people (Global Education Centre and Family Planning International Development, 2004). T&C exports decreased by 28 per cent from F\$ 312 million (US\$ 137 million) to F\$ 223 million (US\$ 106 million) between 2000 and 2002, but the expiry of quotas in 2005 led to a negative growth rate of 47 per cent with regard to 2004 (Adhikari and Yamamoto, 2006), triggered by a 78 per cent decrease in RMG imports by the United States (table 4).

An immediate negative impact on employment was estimated as a retrenchment of 6,000 workers, predominantly women (Asian Development Bank, 2006). The Australian Government agreed to relax its rules of origin requirement to 25 per cent in January 2008, something that the Fijian garment industry had long requested (*Fiji Times*, 2006). This policy change is expected to create thousands of jobs; however, the industry fears further job losses of several thousand instead, due to possible economic sanctions imposed by its trading partners as a result of the recent political instability in the country.

(b) *Maldives*

Exports of RMGs by Maldives took off in 1997 and peaked in 2002. Having "guest workers" from Asia is not unique to the clothing industry in island economies, given their lack of trained domestic workers. In its peak time, 2,478 expatriates were employed in the industry. The number of expatriates started to decline in 2004 and, by January 2005, it had been halved to 1,228; by the end of that year, it had declined to 431. During its peak, more than 70 per cent of expatriate garment workers were sewing machine operators, with more than 90 per cent of them women. The majority were Sri Lankan women who were sent home as operations slowed down (Adhikari and Yamamoto, 2006).

Given the high dependence on expatriate labour, one analysis suggested that the effects of the elimination of quotas on the economy of Maldives were expected to be negligible (United States Department of State, 2006). Although detailed data for local employment are not available, the 2000 census data show that 2,699 men and 5,518 women were working as "craft and related trade workers" in manufacturing (Ministry of Planning and National Development, 2004a). Female production workers in manufactur-

ing received the lowest pay among industries (Ministry of Planning and National Development, 2004b). Since many garment factories have been located in the outer atolls, where alternative jobs for low-paid garment workers are hard to find, female workers with low skills are likely to face the loss of income and possible long-term unemployment.

Income inequality between Malé and the atolls increased, as did gender inequality in the labour market. Unemployment among women aged 15-24 years rose from 30 per cent to 40 per cent during 1997-2004 compared with the male unemployment rate of 10 per cent to 23 per cent, respectively, for the same age group (Ministry of Planning and National Development, 2005). The loss of foreign exchange may be another factor to consider. RMGs accounted for about one-third of total merchandise exports and half of merchandise exports by the private sector in 2003 (Ministry of Planning and National Development, 2004a).

(c) *Mongolia*

The T&C industry accounted for 11.3 per cent of total 2004 exports in Mongolia and employed an estimated 20,000, mostly women, as well as illegal migrants (Asian Development Bank, 2006). With the elimination of quotas, United States' T&C imports from Mongolia recorded a 41.2 per cent decline from 2004 to 2005 (table 4). In March 2005, the number of workers was 4,526 persons in textiles and 8,880 persons in wearing apparel, dressing and dyeing fur sectors, a 30 per cent decline from 6,401 and 12,725 persons, respectively, in March 2004 (National Statistical Office of Mongolia, 2005).

Products that faced severe declines in 2005 were those items for which quotas expired at the end of 2004 as well as products that other countries were producing. Table 5 shows the top five United States T&C imports from Mongolia, based on their value in 2004. Three of the top five were knitted jerseys and pullovers of cotton, cashmere and man-made fibres, whose export value plunged by 35.1 per cent, 91.6 per cent and 54.8 per cent, respectively. Two other products, women's and girls' woven

**Table 5. Top five trade and clothing products imported by the United States from Mongolia, 2004-2005**

Top five commodities (HS code)	2004	2005	% change, 2004-2005
Knitted cotton jerseys, pullovers, cardigans, waistcoats and similar articles (611020)	53 072 983	34 443 733	35.1
Women's or girl's woven cotton trousers (620462)	38 832 389	35 084 568	9.7
Knitted cashmere jerseys, pullovers, cardigans waistcoats and similar articles (611012)	34 369 618	2 887 544	91.6
Knitted manmade fibres, jerseys, pullovers, cardigans, waistcoats and similar articles (611030)	21 323 058	9 637 070	54.8
Knitted cotton T-shirts, singlets and other vests (610910)	5 860 528	2 580 009	56.0

Sources: USITC, interactive tariff and Trade Data Web.

cotton trousers and knitted cotton T-shirts, are also common RMGs produced by many other countries. These products recorded a negative growth of 9.7 per cent and 56 per cent, respectively, during the first post-ATC year. Cotton imported from China and Mongolia is used in the most labour-intensive parts of production, such as sewing.

Mongolia, which traditionally produces cashmere and wool clothing products, has not been successful in establishing vertical integration for export markets. For example, more than half of the foreign exchange generated from cashmere-related trade consists of exports of raw cashmere to China. The price of raw cashmere is not stable while the price of manufactured cashmere products is; therefore, it is more profitable for Mongolia to process the raw cashmere for domestic manufactures and export the final products. However, Mongolia currently lacks a cashmere processing industry; thus, it often imports cashmere inputs back from China to produce the final products. Lecraw and others (2005) reported that if all raw cashmere produced in Mongolia were fully processed into finished knitted and woven products before export, such exports would generate about US\$ 206 million, more than the 2005 level of the country's entire T&C exports, and employment in the processing industry would more than double.

As for wool, Mongolia currently exports about US\$ 6 million worth of uncombed sheep wool, while carpet exports generate only US\$ 1 million. Mongolia committed to remove its export duty on raw cashmere by 2007 upon its accession to WTO in 1997; however, the Government of Mongolia has been studying the possibility of extending this period to discourage the exports of raw cashmere (German Technical Cooperation, 2006).

With quantitative restrictions on Chinese T&C imports, it was hoped that foreign investors would reopen their factories and restart production in Mongolia. The first eight months of the country's 2006 industrial production data show that the total textile output was 30.7 per cent higher compared with the previous year in real terms (German Technical Cooperation, 2006). In December 2005, the European Union granted Mongolia GSP-plus status for 2006-2008. However, the United States market accounts for more than 95 per cent of Mongolia's T&C exports; therefore, the positive impact from GSP-plus will be limited. Mongolia is currently negotiating a free trade agreement with the United States.

*(d) Nepal*

The T&C industry in Nepal grew rapidly and became a major foreign currency earner after Indian exporters established an RMG industry in the country in the early 1980s. Nepal also expanded its exports of carpets, a product in which the country traditionally has a competitive advantage. RMG exports peaked in 2000 and thereafter started to decline, partly because of preferential market access granted by the United States to sub-Saharan African countries under AGOA. Uncertainties and apprehensions regarding the post-ATC scenario also appear to have contributed to the gradual decline in Nepalese garment exports between 2000 and 2004 (Dahal, 2006). Nepal's T&C exports were heavily concentrated in the United States and European Union markets, accounting for 98 per cent of total T&C exports. The United States alone accounted for more than 90 per cent of T&C exports in the early 1990s, but this share has since been declining (Bhatt and others, 2006).

In both the European Union and the United States markets, Nepal's exports in 2005 and 2006 could not recover to their pre-ATC levels (tables 3 and 4). Table 6 displays the top five T&C export products to the European Union and United States

markets, based on their value in 2004. Wool or fine animal hair carpets and other textile floor coverings (HS 570110) were the top exports of Nepal in both markets. In the European Union, this commodity accounted for nearly 60 per cent of total Nepalese T&C exports in terms of value. Two other commodities that appear in both European Union and United States markets are woven cotton trousers for women or girls (HS 620462) and for men or boys (HS 620342). In 2004, they ranked second and fourth in the European Union market, and second and third in the United States market.

**Table 6. Top five Nepalese export products to the European Union and United States markets, 2004-2005**

	HS	European Union (Euro 1 000)		Change (%)
		2004	2005	
1	570110	46 024 461	41 890 749	9.0
2	620462	5 586 541	1 386 703	75.2
3	621420	5 058 894	5 597 784	10.7
4	620342	2 016 490	1 194 459	40.8
5	621410	1 796 347	1 457 607	18.9

	HS	United States (US dollars)		Change (%)
		2004	2005	
1	570110	28 489 601	2 257 750	13.2
2	620342	21 200 101	12 844 170	39.4
3	620462	18 489 193	12 214 687	33.9
4	611020	14 159 360	6 022 073	57.5
5	610510	4 663 232	1 879 954	59.7

Sources: Eurostat and USITC.

However, both the value of European Union and United States imports of these commodities dropped significantly in 2005 – in the European Union, by 75.2 per cent and 40.8 per cent, respectively, and in the United States, by 39.4 per cent and 33.9 per cent. The two other categories in the top five United States imports from Nepal were knitted cotton jerseys, pullovers, cardigans, waistcoats and similar articles (HS 611020), and knitted men's or boy's cotton shirts (HS 610510). The export value of these two categories decreased by 57.5 per cent and 59.7 per cent, respectively, in 2005. Similar to the Mongolian case described above, Nepal's loss of competitiveness in three of the top five commodities in the United States market are explained by the fact that: (a) they faced more competition after the eliminations of quotas; and (b) they are also produced by other countries in the region.

During its peak period, the RMG industry in Nepal employed more than 50,000 persons; when production for exports declined, the number of workers also went down. A recent study by Bhatt and others (2006) found that the industry employed less than 5,000 persons. Several alarming findings reported in the study regarding Nepali RMG workers can be summarized as follows:

- (a) Nearly 25 per cent of employees reported a decrease in their salaries after 2005 while about 40 per cent saw no changes in salary and 36.1 per cent received better salaries;
- (b) Only 14.6 per cent of the RMG employees lived above the poverty line with net earnings of more than NRs 7,500 (US\$ 100) per month;
- (c) Women on average earned only 60 per cent of a man's monthly salary, and gender disparity in salary was observed among similar occupations even after working hours were taken into account;
- (d) Two-thirds of workers who were previously employed in the RMG industry had become unemployed because of factory closures and about 82 per cent of former workers had not found other forms of employment immediately after leaving the industry; and
- (e) The loss of garment factory jobs had resulted in declining income for almost 20 per cent of the workers while the majority experienced a rise in food and housing costs.

The job losses among RMG workers indicate further negative impacts on human development. More than half of RMG workers surveyed sent remittances home; a majority of those remittances were used to buy necessities and support education of family members. With the loss of income or a reduced salary, their livelihoods are also likely to be affected.

*(e) Trade gains, but not in terms of human development*

Even in countries where export growth has been robust, increased exports do not necessarily translate into more employment, better wages or better working conditions. In general, T&C workers receive relatively low wages. In Bangladesh, where the total number of workers in RMG sector is 2 million, of which 80 per cent are women, the legal minimum earnings of Tk 930 per month (US\$ 16), fixed in 1994, has not been revised since, despite a rising trend in inflation (Asian Development Bank, 2006). In the case of Sri Lanka, a recent report on apparel industry workers estimated that the total costs of covering the basic needs of a worker, excluding savings and remittance, were SL Rs 7,000 and SL Rs 8,800 (US\$ 70-US\$ 85) for outside-free trade zone (FTZ) workers and FTZ workers, respectively (Prasanna and Gowthaman, 2006). The minimum wage of US\$ 36, however, does not meet workers' basic needs; in fact, 86 per cent of workers surveyed receive a basic salary of less than SL Rs 6,000 per month (Prasanna and Gowthaman, 2006).

In Cambodia, despite a rise in RMG exports, workers' earnings decreased by 8.5 per cent in 2005, compared with 2004 (Cambodia Development Resource Institute, 2006, cited in Chan and Sok, 2006). A recent study by Chan and Sok (2006) also found that 30 per cent of workers surveyed perceived that their real wage had decreased in the post-ATC years, opposed to 19 per cent who perceived that their salaries were increasing. The study also found that about 60 per cent perceived that their health condition had worsened compared with the number in 2004 (i.e., prior to the quota expiry). The study argued that longer working hours to meet an increase in orders in the post-ATC environment and less expenditure on food, in order to save money for other purposes such as remittances and savings, might have affected workers' health conditions. Employment had become increasingly casual over time, with increasing prevalence of short-term contracts and piece-rate work. As discussed later in this



chapter, Cambodia has adopted the industry-wide compliance monitoring system. However, the latest report shows that less than a quarter of those factories monitored comply with the overtime within the legal limit (International Labour Organization, 2006).

In the case of Bangladesh, Ahmed and others (2005) found that although overtime for RMG workers had decreased in the post-ATC environment because of buyer pressure to meet the legal limit of 60 hours a week, this had affected workers' well-being negatively because of reduced income and loss of nutritional supplements provided as snacks for overtime workers. The factories were meeting the increased orders by subcontracting some parts of the orders. In short, even in the countries that performed well in the post-ATC period, there were a number of factors that needed to be improved from a human development perspective.

## **B. Challenges facing developing countries**

Getting a foothold in the T&C sector may not be a difficult task, but sustaining and achieving growth may be a real challenge for a number of developing countries. It is not advisable to lump all the countries together because a country with all the necessary prerequisites to become a leading exporter of T&C products (e.g., China) faces challenges that lie more on the demand side, or market access barriers, than on the supply side. However, a small landlocked LDC such as Nepal faces challenges on both the demand as well as the supply side. Therefore, only selected and the most common challenges are highlighted in this section, and examples from countries facing each specific challenge have been included where available.

### **1. Protectionist forces**

Given the existence of powerful vested interests in the T&C industry, particularly in developed countries, the protectionist forces are not likely to wane but rather to be further accentuated in the future. However, the form of protection may change over time. In the past, there was double protection to the T&C industry – through quotas and high tariffs. In the case of China, very little would appear to have changed even after the phasing out of quotas.

Powerful and vocal protectionist lobbies have not only found ways to protect their industries in connivance with their governments, but have also managed to couch these arguments in an altruistic fashion in order to remain “politically correct”. Domestic job losses are the largest single argument made by these interests, followed by helping weaker countries move up the industrial ladder so as to enable them to grow out of poverty through preferential arrangements. Therefore, when it comes to the T&C industry, the normal economic rationale of the need to prevent distortion in the economy caused by trade protection becomes hollow. Moreover, the advice to follow a transparent means of protection such as tariffs, should the protection be inevitable, is also not fully heeded. This is followed by several other near-arbitrary measures such as the imposition of trade remedy measures and discriminatory measures in preferential trading agreements. The various forms of protection in the developed countries, some of which are truly ingenious, are discussed below:

#### *(a) Tariff barriers*

On average, the tariffs imposed on T&C products are four times higher than the average industrial tariffs imposed by the developed countries. The average post-Uruguay

Round tariffs on T&C products in three major industrial countries are 14.6 per cent in the United States, 9.1 per cent in the European Union and 7.6 per cent in Japan, while their average industrial tariffs are 3.5 per cent, 3.6 per cent and 1.7 per cent, respectively (Hayashi, 2005).

Disaggregated data reveal remarkably high tariffs imposed on some products. In the post-Uruguay Round era, the majority of T&C tariff lines face tariff peaks: 52 per cent of T&C imports in the United States have tariff rates of 15.7 per cent to 35 per cent; 54 per cent of European Union imports have duties of 10.1 per cent to 15.0 per cent; and 55 per cent of Japanese imports have duties of 5.1 per cent to 10 per cent (Hayashi, 2005). The high tariff on T&C products has become an even more important trade policy tool in the hands of the developed countries and is not likely to come down significantly even if the stalled negotiations on non-agricultural market access are revived at WTO.<sup>7</sup>

One of the ways to get around this barrier is to provide preferential market access – through either a GSP or an FTA – to a selected group of countries ostensibly with the objective of helping them in their developmental objectives. Undoubtedly, such preferences have helped some countries. However, evidence shows that their impacts have been, at best, mixed as far as the export performance of the preference-receiving countries is concerned. For example, Bangladesh has been able to use the duty-free, quota-free market access treatment to the European Union provided under the “Everything but Arms” (EBA) initiative to the benefit of its knitted apparel exports, with the preference “take-up” rate of 80 per cent. However, the country has not been able to register significant growth in the export of woven items,<sup>8</sup> the reason for which is discussed below.

Similarly, Jordan, a country largely unknown regarding its prowess in textiles and clothing, emerged as a significant player in this industry only after its 2001 free trade agreement with the United States. It has maintained its growth momentum for the past five years. Jordan’s clothing exports to the United States increased from a mere US\$ 43 million in 2000 to US\$ 1.1 billion in 2005 (Ahmad, 2005). During the first six months of 2006, Jordan posted an increase of 18.3 per cent in the United States market (International Textiles and Clothing Bureau, 2006). In contrast, the value of Jordanian exports to the European Union, where it does not enjoy duty-free market access, was only US\$ 8.8 million in 2005 (Ahmad, 2005).

A number of other countries that enjoy preferential market access to the United States or European Union markets did not necessarily fare well in the post-quota era. Examples include: Lesotho, Malawi, Namibia and Swaziland in southern Africa, which are beneficiaries of AGOA; Costa Rica, the Dominican Republic, Jamaica, El Salvador

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<sup>7</sup> Although the major demanders of the NAMA negotiations are the developed countries, the major interest of developing countries lies in the possibility of being able to reduce tariff peaks on products of their export interests to the developed countries such as textiles, apparel and footwear. However, due to a call made by several powerful textile lobbies to have a “sectoral” negotiation on T&C tariffs, with the average tariff capped to 15 per cent (which in itself is a very high figure), the chances of a substantial reduction in tariffs on these products are very slim. Moreover, on 13 June 2006, 44 members of Congress sent United States Trade Representative Ambassador Susan Schwab a letter demanding that textiles be negotiated separately in the Doha Round of trade talks. See National Council of Textiles Organizations, 2006.

<sup>8</sup> See Razzaque and Raihan, 2006.

and Honduras, which are the beneficiaries of CBPTA; and Mexico, which is a beneficiary of the North American Free Trade Agreement (NAFTA). Similarly, a number of countries that enjoy preferential market access to the European Union, e.g., Morocco, Romania and Tunisia, did not achieve a significant export growth in the post-quota era, as discussed above.

There are three major problems associated with countries having preferential trading arrangements. First, since they have had assured market access opportunities during the MFA and ATC periods, they never felt the competitive pressure and did not have any incentive to improve their performance. Complacency led to their lacklustre performance in the post-quota era.

Second, due to strict rules of origin requirements, they have to rely on imported materials from relatively high-cost sources such as the United States and the European Union, which makes them uncompetitive. The “yarn forward” requirement included in most FTAs, which makes it mandatory for the preference-receiving countries to use United States yarn and fabrics as a condition for assembled textile or clothing products to enter duty-free, is a testimony to this factor.<sup>9</sup> While this scheme provides a captive market for United States textile exporters, it also prevents the preference-receiving countries from using textiles from other competitive sources such as China, which are seen as a threat to the survival of United States textile firms.<sup>10</sup>

The captive market hypothesis is corroborated by export data from the United States and the European Union. United States exports of yarns and fabric to NAFTA, Central American and Caribbean Basin countries, which are the beneficiaries of duty-free access to the United States, increased from less than 40 per cent in 1989 to 77 per cent in 2004. Since the European Union also promotes a captive market strategy, 37 per cent of its textiles exports were destined to Eastern European, African and Mediterranean countries (Romania, Tunisia, Morocco, Bulgaria and Turkey) in 2004.<sup>11</sup>

Third, again due to rules of origin requirements included in GSP preferences, most developing countries and LDCs that lack textile and other raw material producing capacities are handicapped because they cannot meet the minimum rules of origin threshold.<sup>12</sup> Among the existing rules of origin requirements imposed for preferential trading arrangement, the one being implemented by the European Union is considered the most restrictive because it requires at least two finishing operations – a process known as “double transformation” – to occur in the exporting country to qualify for preferential market access. Therefore, despite the EBA initiative, LDCs that are not able to meet the requirement continue to have a low level of preference utilization. For example, the utilization rates for clothing preferences of the Asian LDCs under EBA in 2004 were 33.8 per cent for Bangladesh and 65.8 per cent for Nepal (World Trade Organization, 2005). This partly explains the reason behind Bangladesh’s ability to achieve impressive export growth in knitted garments, in which domestic value addition

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<sup>9</sup> See UNDP RCC, 2005b.

<sup>10</sup> See National Council of Textiles Organizations and American Manufacturing Trade Action Coalition, 2005.

<sup>11</sup> See Ahmad, 2005.

<sup>12</sup> For a detailed discussion on rules of origin, see Adhikari and Yamamoto, 2005 and Adhikari, 2005.

is very high and not on woven garments where domestic value addition is extremely limited due to lack of vertical integration. Low utilization of preferences means that LDCs continue to pay MFN tariffs on their exports to the European Union market.<sup>13</sup>

Preferential market access has distorted the tariff structure. The distribution can be quite regressive in nature as it penalizes the poorer countries and rewards the rich countries. For example, Asian countries that are not beneficiaries of preferential market access in the United States market pay much higher tariffs on T&C products than beneficiaries (table 7). Exporters from a poor country such as Bangladesh pay 82 times higher tariffs than Canada for the exports of knitted apparel and 107 times higher tariffs for the exports of woven apparel. Similarly, Bangladesh exports of knitted apparel contribute almost the same share as that of Canada to United States customs revenue, and its woven apparel exports contribute 2.8 times more revenue than do those of

**Table 7. Discriminatory tariffs charged by the United States on apparel imports**  
(based on January-May 2006 figures)

Countries/groups/product categories	Calculated duties as a percentage of customs value		Customs value share in percentage	
	Knit (HS chapter 61)	Woven (HS chapter 62)	Knit (HS chapter 61)	Woven (HS chapter 62)
<b>Non-beneficiary Asian exporters</b>				
Bangladesh	17.96	17.12	2.04	5.38
Cambodia	17.29	16.36	3.47	2.43
China	13.20	11.58	14.50	27.04
India	16.62	13.38	4.22	7.34
Indonesia	19.33	17.40	3.90	6.32
Sri Lanka	15.86	16.54	2.12	2.90
Viet Nam	18.40	16.92	4.47	4.56
<b>NAFTA beneficiaries</b>				
Canada	0.22	0.16	2.09	1.94
Mexico	0.34	0.24	7.78	8.62
<b>CBTPA beneficiary</b>				
Honduras	3.13	1.90	6.06	1.58
<b>AGOA beneficiaries</b>				
Kenya	n.a.	0.68	n.a.	0.52
Lesotho	0.12	0.07	0.68	0.38
Madagascar	n.a.	0.38	n.a.	0.33
<b>Bilateral FTA beneficiary</b>				
Jordan	0.19	0.41	2.50	1.27

Source: EmergingTextiles.com, 2006.

Note: n.a. = not available

<sup>13</sup> Inama (2002) asserted that at least one-third of all LDC exports paid MFN tariffs due to restrictive rules of origin.

Canada. Another comparison between two LDCs from two different regions, Cambodia and Lesotho, is quite striking. Cambodia pays 144 times higher tariffs to access the United States market for its knitted apparel than Lesotho does, and it pays 233 times higher tariffs for exports of its woven apparel.

It is interesting to note that such discriminatory practices do not fall foul of the multilateral rules-based and non-discriminatory systems espoused by WTO. Efforts aimed at remedying these problems have yet to bear fruit. For example, despite the fact that there were extensive discussions in the run-up to the Hong Kong Ministerial conference to provide duty-free and quota-free market access to all LDCs, the decision now limits the duty-free access to only 97 per cent of the products under the tariff lines of the importing countries. Given the strong protectionist undercurrent in the T&C industry in developed countries, many T&C products in which LDCs are competitive may not be included in the "covered list" (Adhikari, 2006a).

*(b) Non-tariff barriers*

Of the several non-tariff barriers, only two – trade remedy measures and regulatory/standard-related barriers – are discussed in this subsection. While the first one is a traditional barrier that is still being actively used by both developed and developing countries, the second one is an emerging barrier that reduces the competitiveness of the T&C exporters of developing countries. A common element in these barriers is that they can be, and have been abused for protectionist purposes.

*(i) Trade remedy measures*

Introduced in the global trading system as measures to protect domestic industry from unfair foreign competition, trade remedies or contingent protection measures have become tools in the hands of the domestic protectionist interest in the developed and developing countries. Three types of WTO-sanctioned trade remedy measures, of which the anti-dumping measure is the most pernicious, can be imposed by the importing countries without having to wait for a verdict from a WTO dispute settlement body.

As documented by Adhikari and Weeratunge (2006), such measures have had dire consequences for the industry revenue as well as employment situation in countries such as India and Pakistan. T&C imports from relatively competitive countries such as China, India, Pakistan and Turkey have been routinely subjected to anti-dumping investigations in the past.<sup>14</sup> Bed linen has been one of the most targeted products by the European Union, and most of the time such an action is initiated at the behest of a single industry group – in this case, Euro Cotton.

Based on a survey of anti-dumping actions initiated between 1994 and 2001, it was found that one major WTO member initiated 53 investigations into allegations of dumping, placing the T&C industry in the third position only after iron and steel, and chemicals.<sup>15</sup> In several instances, investigations into the same products were revived back-to-back, extending over a long period (World Trade Organization, 2003). Commenting on the unfair nature of anti-dumping investigations, Oxfam International (2004)

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<sup>14</sup> See Adhikari and Weeratunge, forthcoming, for a detailed discussion.

<sup>15</sup> See World Trade Organization, 2003.

asserted, “[T]hey take a long time to resolve, impose heavy costs of arbitration, and can be prolonged by small changes to the case”. Anti-dumping measures, unlike other trade remedy measures, can be applied to targeted firms in specific countries, with almost absolute impunity (Adhikari and Yamamoto, 2005).

The post-quota period has seen the burgeoning of other trade remedy measures alongside anti-dumping ones. Temporary safeguard on Chinese imports is a case in point. Although this measure is part of the WTO accession package that China signed onto, this reflects the ingenuity of the protectionist interests. Taking advantage of this provision, a number of countries/groupings, both developed and developing, have imposed various safeguards measures against China. Although the temporary safeguards will expire on 31 December 2008, two other provisions incorporated in China's Protocol of Accession pose a significant burden to China. They are: (a) until 2013, it is possible for WTO members to impose “selective” safeguards against any Chinese exports that cause “market disruption”; and (b) until 2016, it is possible to use the “non-market economy” criterion against China to calculate a “dumping margin” in the process of an anti-dumping investigation. This margin inflates the dumping margin, subjecting the Chinese imports to a higher anti-dumping duty.<sup>16</sup>

*(ii) Regulatory barriers*

Government regulations or industry standards for goods can have an impact on trade in at least three ways: (a) they can facilitate exchange by clearly defining product characteristics and improving compatibility and usability; (b) they also advance domestic social goals such as public health by establishing minimum standards or prescribing safety requirements; and (c) they can hide protectionist policies.<sup>17</sup> Tariffs cannot block market entry unless they are prohibitive. However, regulatory and standard-related barriers could effectively foreclose the market for the exporters if they are stringent and complex, making compliance de facto very costly if not impossible. These are often known as “frictional” barriers in that they raise the cost to the exporters, but do not provide any revenue to the governments imposing such requirements.

Since governments are ingenious in devising various ways to inhibit imports to protect domestic producers in sensitive industries where domestic pressure for protection persists, the list of possible regulatory barriers could be infinite. The risk is that the traditional barriers such as tariffs, quotas and VERs may be replaced by a new form of regulatory barrier.<sup>18</sup> Baldwin (2000) succinctly described the political economy of regulatory and technical barriers:

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<sup>16</sup> This is particularly striking, because on average the anti-dumping duties on dumped imports from non-market economies tend to be more than 12 times higher than normal anti-dumping duties. Messerlin (2004) revealed that in the anti-dumping investigations initiated by the United States (between 1995 and 1998), which resulted in a positive determination, the average dumping margin with price comparison as the basis for estimated normal value of exports was only 3.2 per cent; however, following the non-market economies principle as the basis for arriving at estimated normal value of exports resulted in dumping margin of 40 per cent on an average.

<sup>17</sup> See Sanitary and Phytosanitary Measures and Technical Barriers to Trade (Summary), Centre for International Development at Harvard University, [www.cid.harvard.edu/cidtrade/issues/spstbt.html](http://www.cid.harvard.edu/cidtrade/issues/spstbt.html) (accessed 14 December 2004).

<sup>18</sup> See Maskus and Wilson, 2000.

“Most [regulatory barriers] are highly technical, and a large fraction covers intermediate inputs – products unknown to most voters. Owing to their technical complexity and political invisibility, product norms are often written, directly or indirectly, by domestic firms to which they apply. Quite naturally, these firms write the norms in a way that favours their varieties or at least disfavors foreign varieties.”

Imposition of regulatory and standards-related barriers on T&C products has been limited, but the future looks uncertain. A particularly elaborate and complex trade-restrictive barrier is posed by a new system called “Registration, Evaluation and Authorisation of Chemicals” (REACH)) proposed by the European Union. If adopted, the REACH legislation could subject textiles and clothing firms to a procedure of registration, evaluation, authorization and restriction for a large number of chemical substances. The European Union trading partners, including developed countries, are making efforts to convince the European Union to modify the rules before a formal announcement in order to reduce the potentially disruptive impact of REACH on international trade, and to improve its workability (United States Mission to the European Union, 2006).

The governmental barriers mentioned above would at least provide some element of predictability despite their protectionist undercurrent. Private standards, differing from firm to firm, can also pose costly barriers. Due to pressures from consumer groups, the environmental lobby and trade unions, some of the major buyers in developed countries have private “codes of conduct”, which they expect all suppliers to follow. These codes mainly correspond to environmental and labour standards, which can significantly raise suppliers’ costs (Adhikari and Weerantunge, forthcoming), especially where multiple codes with different monitoring and reporting requirements are involved.

It is desirable from a human development perspective to make a gradual but sustained effort aimed at reaching higher environmental and labour standards, since an abrupt switch to higher standards could erode the competitiveness of enterprises in developing countries. The necessity of ensuring compliance with multiple standards can further aggravate the problem. Due to the immense market power of the buyers, who can dictate their terms, T&C exporters are left with only two choices. Either they have to custom-tailor the working environment in the factory to fulfil different conditions imposed by their buyers, or they have to follow the most stringent buyer standards. Both these responses can affect the competitiveness of these enterprises.

## **2. Supply side constraints**

Even if market access barriers are removed, most developing countries still face several supply-side constraints, which impede their competitiveness. The five most common constraints, some of which cut across the entire manufacturing sector, are discussed below.

### *(a) Poor human capital*

The lack of skilled and/or trained human resources, which impedes productivity growth, is a major reason for the inability of most developing countries to take full advantage of trade liberalization, and for others the incapability of facing a threat to their survival. While the wages paid to T&C workers in several Asian countries are much lower than those paid in China, they are not as competitive as Chinese workers due to

poorer skills (notably among non-production workers) and other factors that have an impact on productivity. According to the United States International Trade Commission (2004), the average hourly compensation for Chinese garment workers in 2002 was US\$ 0.68, whereas the figures for Bangladesh, India, Indonesia, Pakistan and Sri Lanka were US\$ 0.39, US\$ 0.38, US\$ 0.27, US\$ 0.41 and US\$ 0.48, respectively. However, the report pointed out that the productivity levels of T&C workers in these Asian countries were significantly lower than that of their Chinese counterparts.

Due to the lack of technical skills, some countries are hiring expatriate staff. A survey conducted by the United States Agency for International Development (2005) found that 40 per cent of indirect personnel positions in the factories that responded in Cambodia were staffed by expatriates. Because using expatriate staff in technical and supervisory positions raises costs, this can have a significant impact on industry competitiveness (Adhikari and Yamamoto, 2006; Chan and Sok, 2006).

The problem of skill deficit can be improved by investments in increasing the general level of education (as has been done in several East Asian countries) and by providing training opportunities. Again, China offers an example for other developing countries; even a decade ago, a Chinese firm, on average, provided about 70 hours of training per year to its workers and managers compared with only 10 hours in India (Chandra, 1998, cited in Tewari, 2006).

Investments in training can help firms achieve considerable productivity improvements. For example, after realizing the virtue of training, garment firms in Lesotho have now started to invest in staff training. Some training programmes have had spectacular results (Bennet, 2006). A training programme implemented by the Lesotho National Development Corporation/ComMark has helped many apparel factories achieve sustainable increases in production line output, sometimes in excess of 25 per cent.<sup>19</sup>

*(b) Poor quality of infrastructure*

The poor quality of infrastructure, whether dilapidated roads or ports, antiquated telecommunications networks or power supplies, adds to the cost of doing business. Most developing countries face these problems, but the degree may differ from country to country. Infrastructure is a major constraint in some South-East Asian countries such as the Philippines and Indonesia, and the situation in African and South Asian countries is arguably worse.

The costs of inefficiency in two Asian countries, Bangladesh and India, are well documented. According to OECD (2004), Indian companies suffer a 37 per cent cost disadvantage in shipping containers of clothing products from Mumbai/Chennai to the east coast of the United States, relative to similar container shipments originating in Shanghai. This cost disadvantage arises from delays and inefficiencies in Indian ports. Similarly, according to the Asian Development Bank (2006), a technical assistance study in 2003 found that clothing producers in Bangladesh were likely to earn 30 per cent more if inefficiencies were removed at Chittagong port. Of the six major exporters from sub-Saharan Africa, South Africa and Mauritius are the only two countries with relatively good facilities in place; other countries such as Kenya, Lesotho, Madagascar and Swaziland are known for their relative weaknesses in infrastructure provisioning.

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<sup>19</sup> See ComMark Trust, 2006.



(c) *Limited trade facilitation measures*<sup>20</sup>

Trade facilitation is defined as the simplification and harmonization of international trade procedures. These procedures encompass the activities, practices and formalities involved in collecting, presenting, communicating and processing data required for the movement of goods in international trade. Procedural hurdles can be corrected with adjustments in customs rules and formalities as well as investment in computerization to speed up the process. However, efforts in that direction have been extremely limited, particularly in South Asia and sub-Saharan Africa where total time taken for import reaches 46.5 and 60.5 days, respectively, against the best performing country's (Denmark) average of five days (table 8).

South Asian countries are marginally better than sub-Saharan African countries in terms of trading across borders, although there are intercountry variations within regions. Hummels (2001) estimated that each day saved in shipping time was worth 0.8 per cent ad valorem duty for manufactured goods. While the time taken for export or import is influenced by several factors, including the quality of transportation and other infrastructure as discussed above, the lead-time can be reduced by doing away with the number of documents and signatures required for import and export, e.g., via automated customs and certification processing. This will provide a significant payoff not only for the T&C industry but also for the trading sector as a whole.

**Table 8. Trading across borders**

Region/ economy	Document for exports (number)	Signatures for exports (number)	Time for exports (days)	Documents for imports (number)	Signatures for imports (number)	Time for imports (days)
East Asia and Pacific	7.1	7.2	25.8	10.3	9.0	28.6
Europe and Central Asia	7.7	10.9	31.6	11.7	15.0	43.0
Latin America and Caribbean	7.5	8.0	30.3	10.6	11.0	37.0
Middle East and North Africa	7.3	14.5	33.6	10.6	21.3	41.9
OECD	5.3	3.2	12.6	6.9	3.3	14.0
Denmark	3.0	2.0	5.0	3.0	1.0	5.0
South Asia	8.1	12.1	33.7	12.8	24.0	46.5
Bangladesh	7.0	15.0	35.0	16.0	38.0	57.0
India	10.0	22.0	36.0	15.0	27.0	43.0
Pakistan	8.0	10.0	33.0	12.0	15.0	39.0
Sub-Saharan Africa	8.5	18.9	48.6	12.8	29.9	60.5
Kenya	8.0	15.0	45.0	13.0	20.0	62.0
Madagascar	7.0	15.0	50.0	9.0	18.0	59.0
Malawi	9.0	12.0	41.0	6.0	20.0	61.0
Zambia	16.0	25.0	60.0	19.0	28.0	62.0

Sources: World Bank and IFC, 2006.

<sup>20</sup> See also chapter VII in this volume.

In the post-quota era, improved trade facilitation is even more critical for the survival of the T&C industry in those two regions, not least because it is one industry that involves both imports of inputs as well as exports of finished products. Given the move towards vertical specialization and the slicing up of the value chain, each day saved could provide enormous benefits in terms of enhancing the industry's competitiveness. This is important, as some RMG products are time-sensitive and delayed consignments could lead to the cancellation of orders (Adhikari and Weeratunge, forthcoming).

*(d) High costs of inputs*

Except for countries with vertically integrated production structures, most developing countries have to rely on imported fabrics and accessories in the process of production. The absence of a vertically integrated production structure may not be a major disadvantage provided the inputs can be obtained in a short time at international prices. However, due to the problems mentioned above in the section on infrastructure and trade facilitation, it is not possible for most South Asian and sub-Saharan African countries to access inputs on short order.

The high cost of inputs can be reduced by lowering tariffs on inputs across the board. However, this may not be a desirable option given the reliance of developing countries on customs for raising government revenue (Adhikari and Yamamoto, 2006). Therefore, many countries allow the import of inputs to be used for export processing at reduced or even zero duty rates. In order to ensure that the inputs are actually used for manufacturing exportable items, several governments have made use of bonded warehouse facilities.

This system can, however, be burdened with bureaucratic problems, as the example of Nepal shows. Exporters who have not exported for a year have faced administrative difficulties in benefiting from this facility. Even for regular exporters, refunds are not delivered in time, taking more than 30 days to process from the date of the claim. Moreover, it has become extremely difficult to get the bank guarantee released, particularly after the introduction of the value added tax -related regulation.<sup>21</sup>

*(e) Limited access to finance*

Access to credit, especially for small and medium-sized enterprises, including T&C ventures, is a major problem in many Asian and African countries that hinders the prospect of unleashing entrepreneurial potential. Due to the time and difficulties involved in recovering loans in the event of default, and generally the high level of non-performing assets, financial institutions exercise extra caution while lending. Accordingly, they do not consider small enterprises and/or those enterprises with limited ability to provide collateral security as creditworthy. Consequently, these enterprises have to finance the majority of their operations through internal resources or rely on informal sources of funding, which tend to be extremely costly (Adhikari and Yamamoto, 2006).

For example, as stated in a study conducted by International Business and Technical Consultants, Inc. (2003) for the Ministry of Commerce of Bangladesh, a large number of knitwear garment exporters with a capital of Tk 10 million to Tk 20 million (US\$ 170,000-US\$ 340,000), and a workforce of between 150 and 300, were forced to

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<sup>21</sup> See Dahal, 2006, for further details.

borrow from local moneylenders at a monthly interest rate close to 11 per cent. Exporters are compelled to take such loans when they fail to obtain timely bank financing (Adhikari and Yamamoto, 2006).

In the case of Nepal, the story is slightly different. While small entrepreneurs' access to credit as well as other banking facilities is severely restricted by discriminatory interest rates and the need for collateral, exporters are facing new problems after the phasing out of quotas. Nepalese commercial banks are increasingly becoming reluctant to make new investments in this sector and are initiating stricter action against debtors (Shakya, 2005).

### **C. Emerging issues**

Apart from the conventional issues discussed above, trade in T&C products is going to be influenced by several others emerging issues, some of which are discussed below.

#### **1. Changing buyers' behaviour**

Textiles and clothing, and particularly clothing, is a classic example of a buyer-driven commodity chain that is characterized by decentralized, globally dispersed production networks, coordinated by lead firms who control design, marketing, and branding at the retail level. Many of the most powerful branded retailers such as Gap, Nike, Wal-Mart and Liz Claiborne own no factories and do not necessarily "make" in order to sell. Yet, by controlling design, input sourcing, branding and distribution, these powerful retailers capture the largest share of value added in apparel and textiles production (Gereffi, 1999).

The economic power of large retailers, predominantly in developed countries, has increased substantially over the past few years (World Trade Organization, 2005). In the United States, for example, the 29 biggest retailers account for 98 per cent of sales (UNDP RCC, 2005a). The trend now is toward greater product specialization and brand-name, and market segmentation. These large retailers collect market information about the latest trends in styles and tastes, and their integration of this information combined with the volume of their business gives them considerable leverage in dealing with suppliers (Kelegama and Weeraratne, 2005).

Because of the sheer market power, it is the buyers' preference that is going to shape market response in the exporting countries. Although price and quality used to be the two dominant variables, buyer preferences these days represent the interplay of various factors, of which the following five are critically important.<sup>22</sup>

##### *(a) Price and cost factors*

The price of final delivery of goods into the warehouse is still a factor that influences the sourcing decision of the majority of buyers.<sup>23</sup> While several Asian countries including Bangladesh, Pakistan, Indonesia and Viet Nam appear to have

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<sup>22</sup> See also Kelegama and Weeraratne, 2005.

<sup>23</sup> For example, Wal-Mart is well known for its "notorious practice of squeezing its suppliers' margin." See Tewari, 2006 (p. 16).

followed a low-cost strategy, the sustainability of this approach has been challenged on the basis that the focus on low costs makes them always vulnerable to competition from the next lower cost supplier (Tewari, 2006).

*(b) Critical mass*

Buyers will be reluctant to place orders with producers who have a small share in the world market. According to this view, countries with large production capacities and the ability to deliver huge quantities are likely to be preferred by buyers, as this keeps down the input costs of those suppliers, the transaction costs of dealing with multiple suppliers and the trading costs of shipping from those countries. This view is supported by the United States Department of Commerce, which estimates the number of countries from which major items would be sourced by United States buyers will drop to 25 per cent of current levels by 2010 (UNDP RCC, 2005a).

*(c) Risk spreading*

A possible scenario opposing the critical mass sentiment is the risk-spreading argument. Buyers, desirous of maintaining uninterrupted supply, would like to diversify the sources from which they import T&C products. For example, according to the United States International Trade Commission (2004): "To reduce the risk of sourcing from only one country, the United States importers also plan to expand trade relationships with other low-cost countries alternative to China".

For example, stores such as Wal-Mart and Dillards make spatial distinctions among the location of the suppliers from whom they source certain categories of apparel (Tewari, 2006). Indeed, because they were anticipating the re-imposition of quotas on China, several buyers continued to source products from countries such as Bangladesh and Cambodia during the first few months of phasing out of quotas, and this contributed to the continued success of those countries.

*(d) Total solution providers*

Buyers' preferences are likely to be tilted in favour of suppliers who can cover all stages of the value chain in production, ranging from product design to input sourcing, manufacturing, packaging and shipping of the final product (Adhikari and Yamamoto, 2005). Several East Asian manufacturers have now moved up from assembly of cut fabric into more complex operations that entail coordination, supply of machinery and finance, and management of subcontractors. They are now full-package suppliers for international buyers, and are operating as transnational intermediaries receiving orders from large retailers and subcontracting to their network of producers, which are located in Asia, Latin America and Africa (Hayashi, 2005). This issue is further discussed below under the subheading "value chain management".

*(e) Ethical concerns*

As discussed above, pressure from consumer groups in industrialized countries, including the boycotting of products manufactured in sweatshops or in an environmentally-unfriendly manner, has brought ethical concerns into the decision-making matrix of the buyers. Most buyers have themselves developed a "code of conduct" with which they want all their suppliers to comply. This includes issues such as working conditions, workers' health and safety, minimum wages, maximum working hours and overtime.

## **2. Graduation and loss of competitiveness**

The history of the T&C industry suggests that as economies developed and workers' incomes increased, countries gradually moved up the technology ladder, and either started producing value-added T&C products or moved to other manufactures such as electronics and consumer durables. Even within the T&C sector, with textiles being more capital and often knowledge-intensive compared to clothing, countries continue producing textiles even after reaching a certain threshold in the development ladder. Mayer (2005) argued that the shift of labour-intensive activities in textiles and clothing away from the first-tier NICs towards other Asian countries had clearly reflected industrial upgrading associated with wage increases as well as a move in production and export patterns towards more technology-intensive goods.

Of late, China's changing comparative advantage has been a topic of general discussion as well as empirical studies. Based on a Heckscher-Ohlin-type trade model that concentrates on relative endowments of labour, land and human capital, Mayer and Wood (2001) showed that China's comparative advantage was not in low-skill, labour-intensive production, such as clothing, but in manufacturing sectors with a higher skill content. Compared to other countries including China, important clothing exporters from South Asia such as Bangladesh, India and Pakistan have an unusual combination of low levels of both skill per worker and land per worker. This gives those countries a strong comparative advantage in labour-intensive manufactures, which use little of either skill or land per unit of labour (Mayer, 2005).

Similarly, according to the International Labour Organization (2005a), China is in the process of outgrowing its comparative advantage for the most labour-intensive manufacturing industries. It is evolving towards higher value-added industries. During this process, China is developing not only as a manufacturing hub, but also as an important consumer market that is likely to absorb a larger share of its own production as well as total world imports. Rising income in China is likely to be associated with rising wages for low-skilled workers, so that the share of skill-intensive items in China's manufactured exports is likely to rise. It is interesting to note, in this context, that wages in China's export industries are indeed rising and that this may jeopardize the international competitiveness of Chinese exporters of labour-intensive manufactures, especially if productivity fails to keep pace (Harney, 2004, cited in Mayer, 2005).

## **3. Lean retailing**

As yet another reflection of their market power, buyers are unwilling to maintain high levels of stock in their warehouses or stores. Moreover, taking advantage of the latest technology, they would like to respond promptly to consumer demand in line with rapidly changing fashions. With this trend toward "lean retailing", producers that can provide quick turnaround time enjoy an important competitive advantage. Most studies argue that proximity to large markets (e.g., Mexico, Central America and the Caribbean countries to the markets of the United States and Turkey, and Central and Eastern European countries to the European Union) is a key factor in ensuring a quick turnaround (World Trade Organization, 2005).

The importance of "timeliness" and fast delivery in lean retailing practices has significantly affected supplier location over and above consideration of price (Nordas, 2004; and Berger, 2006, cited in Tewari, 2006). Emphasizing promptness in delivery as a key factor in order to remain competitive in the post-quota era, Abernathy and Weil (2004) argued that the proximity advantage would become even greater as retailers raised the bar higher on the responsiveness and flexibility required of their suppliers.

However, it is necessary to see if this is the case even at a disaggregated level. For example, with high-fashion products such as women's clothing, which do not require replenishment after one season, the issue of proximity may not matter. On the other hand, for replenishment products such as men's jeans, it would appear that producers closely located to the world's major markets are at an advantage (Abernathy, Volpe and Weil, 2004). For example, replenishable products make up a greater share of United States apparel imports from Mexico than they do from Asian locations, despite the cost advantage associated with the sourcing from the latter. In 2003, United States buyers sourced over US\$ 4 billion-worth of replenishable products from Mexico and the Caribbean Basin (amounting to 22 per cent of all apparel sourced from these countries) compared with US\$ 1.3 billion of those products from China and other Asian countries (Abernathy, Volpe and Weil, 2004).

However, declining shares of Mexico, Caribbean and other South American countries in United States imports and declining shares of Eastern European, Mediterranean and North African countries in European Union imports of T&C products show that, on the whole, proximity has a limited role in shaping and influencing buyers' decisions. It may continue to be important in a limited range of products, but its overall significance is gradually declining due to decreasing communications costs and shipping transit time, and improved efficiency of trade-related services.

#### **4. Value chain networks**

Large retail chains such as Wal-Mart and "branded marketers" such as Nike and Reebok have been outsourcing their production to low-wage countries but have retained control, as noted above, over the major portion of the value chain. By keeping control over the design and marketing functions, they also maintain close control over the global T&C value chain through standard-setting, often sourcing raw materials themselves, distributing them globally and then importing the made-up garments.<sup>24</sup> However, it is difficult for these large-scale buyers to coordinate all these activities by themselves. As Abernathy, Volpe and Weil (2004) argued:

"Making sourcing decisions in the global apparel market is a daunting task. Due to factors including language and custom barriers, communications hurdles, and the sheer number of producers scattered across the world, United States retailers have had to change the way they approach the world market. Some large retailers have established their own buying offices overseas to administer the outsourcing of their private label products. Others work with large and sophisticated independent sourcing agents to handle this intricate task."

Buyers' inclination toward the second option mentioned has led to the emergence of intermediaries, which are essentially "subcontracted" by large buyers to perform critical tasks in the value chain. Drawing on tacit knowledge gained from years of immersion in the garment industry, their ability to master the process of fulfilling large orders to the exact specification of their buyers and to exacting delivery schedules as well as their specific knowledge about production management, many companies from East Asia (mainly Hong Kong, China, as well as the Republic of Korea and Taiwan Province of China) have been acting as intermediaries for global buyers since the 1980s

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<sup>24</sup> See Morris, 2006.

and 1990s (Tewari, 2006). Their capacity to mobilize and coordinate full-package manufacturing in global T&C value chains led to what Gereffi (1999) termed “triangular production networks”. This implies production is done in one country (usually less developed), organized and coordinated by firms in another country (usually middle-income), and sold to a buyer in yet another country (usually developed).<sup>25</sup> Companies such as Li & Fung Ltd. are emerging as successful intermediaries of such triangular networks (see box).

#### **Organizational skills in the changing landscape of T&C trade**

A Hong Kong, China, based company, Li & Fung Ltd.,<sup>26</sup> founded in China in 1906, has evolved from an exporting agent of porcelain and silk from China to a professional manager of the entire supply chain – from product design and development, through raw material and factory sourcing, production planning and management, quality assurance and export documentation, to shipping consolidation. The company gained expertise in buying and selling quotas from Asian markets for shipment into the United States in the 1970s and 1980s as an important element of its garment exporting business.

As a buying agent and broker in quotas, it established backward links with more than 2,000 Asian suppliers and forward links to manufacturers and retailers. In the late 1980s and 1990s, the company took advantage of its network of Asian suppliers and its growing familiarity with logistics management to offer United States retailers an efficient means of sourcing products in Asian nations. Currently, the Group has more than 70 offices in more than 40 countries and employs 8,000 staff globally who operate a global network of more than 10,000 suppliers. It has achieved a turnover of US\$ 7 billion and aims to maintain the growth rate of 18 per cent achieved in 2005 to be able to achieve a turnover of US\$ 10 billion by 2010.

Perhaps indicative of the next step of evolution, the company has entered into a licensing agreement with Levi Strauss & Co. Under this agreement, the company will design, manufacture and market men's tops for United States market under various Levi's® labels including Levi Strauss Signature™ branded jeans that are sold to United States mass marketers (Abernathy, Volpe and Weil, 2004).

### **5. Adjusting to the post-quota world**

The temporary safeguards imposed on China have changed the entire dynamics of the T&C trade, with several countries either holding on to their past gains or achieving remarkable export growth. However, many analysts believe that this situation is short-lived (Razzaque and Raihan, 2006; Bhatt and others, 2006; Sisouphanthong and others, 2006; and Chan and Sok, 2006). From this point of view, the real competition in the world T&C market will begin only after 2008 with the phasing out of these temporary quotas.

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<sup>25</sup> See Morris, 2006.

<sup>26</sup> Figures are updated based on the company's website at [www.lifung.com/eng/global/home.php](http://www.lifung.com/eng/global/home.php) (accessed on 14 December 2006).

Safeguard measures on Chinese imports can be seen as yet another breathing space for a number of countries that are expected to lose out in the post-2008 period. Efforts have already been made in several countries, even before the phasing out of ATC, either as a “preparedness strategy” or as a “survival strategy”. While some support measures have been taken only by governments, others were undertaken through public-private partnership or with the private sector reacting to incentives provided by the governments.

(a) *Efforts made so far*

(i) *Government support for the T&C industry*

Governments all over the world are known for providing targeted support to priority sectors, including protection from outside competition, in order for them to grow, prosper and face global competition. A recent study by Adhikari (2006b) on the magnitude and type of government support provided in seven Asian countries (Bangladesh, China, India, Indonesia, Pakistan, Sri Lanka and Viet Nam) suggests the emergence of the following pattern.

First, support is a function of the ability as well as the willingness of governments to provide assistance. Therefore, better resourced countries such as China appear to have provided more assistance compared to, say, Indonesia. Government of China has heavily supported the modernization of its factories<sup>27</sup> and provided “tax forgiveness” to the state-owned enterprises (SOEs),<sup>28</sup> in addition to creating textile cities and providing export credit insurance to the T&C enterprises. Governments that pursue active industrial policies tend to provide higher levels of support, which can also be seen from the examples of China and India vis-à-vis Indonesia or Sri Lanka.

Second, since maintaining and improving competitiveness is the key to survival in the post-quota world, investment in technological upgrading or modernization of the T&C sector has been the most widely utilized form of support in all the countries reviewed. While some countries have reduced tariffs on imports of machinery and equipment, others have provided preferential credit or cash support to help their firms modernize themselves. Apart from China, as mentioned above, examples include Bangladesh, India, Indonesia, Pakistan and Viet Nam.

Third, a reduction in the prices of infrastructure, such as rebates/reductions in utility charges, was found to be the least used (or least reported) form of government support. Even in the case of Bangladesh, where this facility is provided to export-oriented enterprises, the scheme appears to have only been introduced into its industrial policy of 2005.

Fourth, income tax exemption for the exporting sectors, an extensively used form of government support in the past, is not the norm anymore, with some governments not providing such a facility and some recently discontinuing it. For example, income tax

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<sup>27</sup> During 1997 and 2000, more than US\$ 30 billion of state-of-the-art textile machinery was imported by China. See Ministry of Commerce, 2005, cited in World Trade Organization, 2006b.

<sup>28</sup> Grants or tax forgiveness totalled Y 3.1 billion in 1997 and 1998. See World Trade Organization, 2001.



exemption is not provided by Indonesia while India has recently discontinued it. Others charge income tax at reduced rates for export oriented enterprises.

Fifth, the operation of special economic zones (SEZs) or export processing zones (EPZs), which are not only targeted at the T&C industry, is common in all the seven countries reviewed. A separate discussion on this special measure is included below. Moreover, refunds of, and reductions in excise duty, sales tax and VAT for the inputs – goods and/or services – used in export processing, which is provided in all the countries reviewed, is another general support measure not confined to the T&C sector. Similarly, duty reduction on the imports of inputs also figures as one prominent means of supporting export-oriented industries in the majority of the countries reviewed.

Sixth, although all the countries studied have achieved export growth in the post-quota period, no systematic study has been conducted to establish any casual link between the magnitude of government support and its contribution to export growth. Moreover, much of the support appears to have resulted from a “demonstration effect”, with countries trying to replicate a successful model without conducting a proper cost-benefit analysis. Government support to the industry has important fiscal implications, and its sustainability can be questioned.

Seventh, most governments appear to have provided such support in a WTO-compliant manner. This has been made easier by the fact that LDCs and developing countries with less than US\$ 1,000 per capita gross national product are exempted from rules on subsidies under the Agreement on Subsidies and Countervailing Measures. Moreover, general subsidies, i.e., the subsidies given for production across the board to the entire industrial sector, based on some generally applied criteria can be provided, as can subsidies for research and development and/or environmental conservation (Das, 2006). The fact that these subsidies have not been challenged so far is also a testimony to the fact that they do not fall foul of WTO provisions.

*(ii) Export processing zones*

One of the major supply-side constraints faced by most least developed and low-income countries is the lack of ability to enhance competitiveness, resulting from poor infrastructure, inability to obtain inputs at international prices with the shortest possible lead-time, inability to meet the deadline for orders because of frequent interruptions in operation from labour unrest or political disturbances, and other regulatory barriers. Because these barriers severely constrain the ability of the private sector to earn an attractive return on investment, the private sector, in turn, is reluctant to invest in sectors such as light manufacturing of T&C and electronic products despite their export potential. Foreign investors are even more hesitant (Adhikari and Yamamoto, 2006). Therefore, in order to attract investments<sup>29</sup> in these sectors, many governments in developing countries have established various EPZs and SEZs. Within these zones, governments provide incentives to enterprises that mimic – and go beyond – the free trade scenario. For example:

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<sup>29</sup> In several countries, foreign investors are the main beneficiary of the positive environment created by export processing zones, whereas governments could provide incentives to local investors in order to benefit equally from the favourable setting. See World Trade Organization, 2005.

- Enterprises within EPZs can obtain inputs such as equipment and raw materials duty-free; a certain level of regulatory relief is assured;<sup>30</sup>
- Foreign exchange controls are not applied;
- Profit repatriation is guaranteed;
- Strikes and other labour actions are prohibited; and
- In some cases, freedom of trade unions is also restricted.

Moreover, trade services and infrastructure facilities available within an EPZ are higher than national average standards. However, certain conditions are also imposed on EPZ enterprises including, among others, either not being allowed, or severely restricted from making domestic sales.

The primary goals of EPZs are to create conducive business environments and to enhance earnings by promoting non-traditional exports, direct investment, technology transfer and knowledge spillover. The greatest EPZ contribution appears to be job creation and income generation. EPZs can also contribute to building human capital through their demonstration and catalyst effects on the country entrepreneur pool (Madani, 1999).

Although EPZs have attracted considerable attention in the empirical literature, studies focusing on the efficiency of the T&C sector within an EPZ are rare. According to one analysis conducted by WTO (2005), which focused exclusively on LDCs, EPZs in some cases not only offered beneficial business to domestic and foreign firms, but also boosted economic development by helping countries enhance their competitiveness. However, the report cautioned: "In the majority of cases, success of the EPZ was limited and contributed only to a minor extent to an improvement of LDC competitiveness in the T&C sector" (Madani, 1999).

One reason for this could be the very limited backward or forward linkages between the EPZ and the local economy. Because of the incentive structure, together with the quality and reliability of inputs demanded by EPZ-based exporting firms, most prefer not to purchase inputs from local industries. This acts as a barrier to creating a reliable backward linkage. Moreover, because firms located in the EPZ are prevented from making domestic sales, their forward linkage with the local economy is severely constrained (Adhikari and Yamamoto, 2006).

Another important consideration is whether the incremental net value of the expected benefits justifies the huge investment to be made, at least initially, by the public sector<sup>31</sup> as well as the costs to be incurred in the form of foregone revenue. Research by Jayanthakumaran (2003) on the performance of EPZs, using a benefit-cost analytical framework, found that zones in China, Indonesia, Malaysia, the Republic of Korea and Sri Lanka were economically efficient and generated returns well above

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<sup>30</sup> For example, in Sri Lanka, the Board of Investment (BOI) encourages investors to locate their factories in BOI-managed industrial processing zones to avoid land allocation problems. See United States Trade Representative, 2004.

<sup>31</sup> The assumption is that the private sector also will be made to participate in the export processing zone by contributing both financial and managerial inputs.

estimated opportunity costs. On the other hand, the heavy infrastructure costs involved in setting up the zone in the Philippines resulted in a negative net present value.

In some countries, EPZs can become controversial mainly because of the tug of war between the Ministry of Finance, which is concerned with revenue foregone, and the Ministry of Industry, which wants to create industries as well as employment opportunities. For example, two ministries in India are currently at loggerheads over a proposed plan to upscale the creation of SEZs. According to an estimate prepared by the Finance Ministry, the country would have to forego about US\$ 22 billion, on account of the SEZ-granted tax rebates, by 2009/10. According to the estimate by the Commerce and Industry Ministry, one million new direct jobs will be created on account of SEZs in the next five years, with corresponding impacts on incomes and potential tax revenue as well as spillovers in the economy, including the creation of indirect employment.<sup>32</sup>

*(iii) Case studies*

Building on an earlier study (Adhikari and Yamamoto, 2005), this subsection discusses case studies of three Asian countries that have achieved success in maintaining or even increasing their exports in the face of phasing-out of quotas. These case studies (Cambodia, Sri Lanka and Thailand) were initially prepared when the impact of safeguards imposed on China had yet to be felt. However, even after the imposition of safeguards on China, the contributions of these strategies have not diminished.

- *Cambodia – improved labour standards*

Cambodia's access to the United States market from 1999 to 2004 was contingent on its record of compliance with labour standards, with quota rates increased every year based on successful compliance. In order to satisfy this requirement, Cambodia adopted a corporate social responsibility programme in collaboration with the International Labour Organization (ILO), known as Better Factories Cambodia (formerly the ILO Garment Sector Project).

Started in 2001 to help Cambodia's garment sector achieve and maintain improvements in working conditions, the project (a) monitors and reports on working conditions in Cambodian garment factories measured against national and international standards, (b) helps factories to improve their productivity, and (c) works with the Government and international buyers to ensure a rigorous and transparent cycle of improvement. The main objective of the programme is to help Cambodian garment factories constantly improve the conditions of labour by strictly adhering to national labour legislation as well as international Conventions that Cambodia has signed as a member of ILO. The programme aims at setting minimum standards as agreed by the decision of a tripartite body (Government, private sector and trade union), monitoring compliance and providing advisory support and capacity-building training to stakeholders to support compliance (International Labour Organization, 2005a and 2005b).

According to a buyers' survey conducted by the Foreign Investment Advisory Services (2004) of the World Bank Group, more than 60 per cent of buyers interviewed

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<sup>32</sup> See Mehta, 2006, for further details.

said compliance with labour standards was of equal or more importance compared to considerations of price, quality and lead times. The survey also found that Cambodia's labour standards were seen as higher than other Asian countries (Bangladesh, China, Thailand and Viet Nam). It also revealed that 60 per cent of the buyers planned to increase their garment purchases from Cambodia, while none said they would cut back.

Cambodia's ability to achieve an overall export value of US\$ 2.2 billion in 2005, an increase of 11.7 per cent over the 2004 figure,<sup>33</sup> lends credence to the findings of the study. Based on the import figures of the European Union and the United States for the first eight and nine months of 2006, respectively, Cambodia has done extremely well in both markets. While improved labour standards could have partly contributed to this, safeguards against China's exports may have played a greater role in this regard. Although Cambodia's bilateral agreement with the United States has expired and securing increased quotas is no longer an incentive for Cambodia, the programme of labour standards is to be continued by the Government of Cambodia in all likelihood (Chan and Sok, 2006).

However, there are four clear problems associated with this programme. First, as expressed by the Garment Manufacturers Association of Cambodia, compliance with labour standards has led to increased costs for exporting enterprises, thereby eroding their competitiveness. Second, greater freedom of association has led to an increase in strikes and other disruptive activities that are detrimental to the interests of the industry (Chan and Sok, 2006). Third, despite the success of this model in the garment industry, it has not been replicated in other industries in the country and certainly not in other LDCs having similar socio-economic conditions and export profiles. Fourth, this scheme covers only the formal sector, not the informal sector (Adhikari and Yamamoto, 2005).

- *Sri Lanka: Focus on a niche product*

The growth of the Sri Lankan garment industry, like that of many other developing countries, can be mainly ascribed to the existence of the quota system. Several studies predicted that Sri Lanka would be one of the losers in the post-quota regime. This almost came true in 2005, when Sri Lanka's export to the European Union market declined by 1.3 per cent in value terms. Fortunately, due to a 5.9 per cent growth in the United States market, Sri Lanka still managed to post a positive growth of 3 per cent in United States dollar terms at the end of 2005 (Adhikari and Yamamoto, 2005). Since the Sri Lankan T&C sector is not considered highly competitive due to several factors – higher wages, low productivity of workers, high cost of utilities and a lack of backward linkages – private entrepreneurs realized that they should focus on niche products in order to create an opportunity for themselves.

Taking advantage of the relatively high level of education of its workers,<sup>34</sup> coupled with their aptitude for learning quickly, Sri Lanka started focusing on a distinct segment of apparel, i.e., women's undergarments. Another distinct advantage of Sri

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<sup>33</sup> See Chan and Sok, 2006.

<sup>34</sup> The literacy as well as education level of Sri Lanka is considered "one of the best" in South Asia. In 2004, the literary rate (ages 15 and above) was 90.7 per cent, compared to 61 per cent in India, 48.6 per cent in Nepal and 49.9 per cent in Pakistan. The only South Asian country to have a higher literacy rate comparable with Sri Lanka is Maldives (96.3 per cent). See UNDP, 2006.

Lanka is that some of the manufacturers in the country had already been concentrating on this segment for a relatively long period and had established a reputation in the export market. Table 9 provides growth rates for this sector since 2004. According to the figures, the category in which the fastest export growth was attained in the United States market was cotton briefs and panties, between 2004 and 2006: growth reached 910 per cent in the first nine months of 2005 compared with the corresponding period in 2004, and 58.7 per cent in same period of 2006. In the case of the European Union market, brassieres showed consistently strong import growth, at 18.6 per cent in first eight months of 2005 and 52.2 in same period of 2006.

The figures suggest that there is tremendous potential for expansion in the United States market. With combined exports of US\$ 240 million to the United States and European Union markets, these items represented 11 per cent of the total Sri Lankan export of T&C products in 2005. In 2006, these exports, which increased to US\$ 321 million, represented 15 per cent of all T&C exports by Sri Lanka to these two major markets.

For a country that has recognized its limitations in terms of competing with other low-cost economies, and which has a pool of skilled and educated human resources, focus on a niche product may be an option for survival. This sector is not likely to face

**Table 9. Sri Lankan exports of women's undergarments**

<b>Imports into US market (US\$ million)</b>						
<b>HS</b>	<b>Product description</b>	<b>Jan.- Sept. 2004</b>	<b>Jan.- Sept. 2005</b>	<b>Jan.- Sept. 2005</b>	<b>Change (%) 2004-2005</b>	<b>Change (%) 2005-2006</b>
610821	Women's or girls' briefs and panties of cotton, knitted or crocheted	5	53	84	909.9	58.7
610822	Women's or girls' briefs and panties of manmade fibres, knitted or crocheted	18	22	35	22.1	60.7
621210	Brassieres, all types of textile materials	64	89	79	38.9	11.5
<b>Imports into European Union market (Millions of Euros)</b>						
<b>HS</b>	<b>Product description</b>	<b>Jan.- Aug. 2004</b>	<b>Jan.- Aug. 2005</b>	<b>Jan.- Aug. 2005</b>	<b>Change (%) 2004-2005</b>	<b>Change (%) 2005-2006</b>
610821	Women's or girls' briefs and panties of cotton, knitted or crocheted	17	13	20	22.4	53.4
610822	Women's or girls' briefs and panties of manmade fibres, knitted or crocheted	11	9	22	19.5	143.3
621210	Brassieres, all types of textile materials	28	33	51	18.6	52.2

*Source:* Authors' calculations based on data from USITC interactive tariff, Trade DataWeb and Eurostat (COMTEXT).

increased competitive pressure in the immediate future because other developing countries with limited skills may not be able to replicate this model easily, mainly because of the lack of educated and skilled human resources.

The Sri Lankan private sector's continuous search for niche products was also demonstrated by the recent success of a single firm in carving a global niche by penetrating an even more lucrative market – body armour, flak jackets and bullet-proof vests for troops in Saudi Arabia as well as for the United Nations (Daily Mirror, 2006). Therefore, it is not surprising that Sri Lanka has the second lowest export concentration of T&C products in South Asia, second only to India (Adhikari, 2006c).

- *Thailand: Focus on regional trade*

While Thailand has been able to increase its exports of garment products to the United States, its exports to the European Union market declined in 2005. This may be due in part to competition from players that are more efficient, such as China and India after the quotas were eliminated. However, Thailand, as a member of the ASEAN Free Trade Agreement, was able to export to its immediate neighbours to make up for the losses it incurred in other large markets. It has become a major supplier of fabrics to all other ASEAN countries, as seen by the profile of its fabric exports. Except for Singapore and Brunei Darussalam, which do not have strong T&C sectors, all other member countries of ASEAN have increased their imports from Thailand.

The European Union's policy of allowing for ASEAN cumulation to achieve rules of origin requirements under EBA appears also to have indirectly helped Thailand. Since its immediate LDC neighbours such as Cambodia and the Lao People's Democratic Republic do not have well-developed textile and other accessories manufacturing, the European Union's requirement for using fabrics from ASEAN to qualify for rules of origin requirements provides a captive market for Thai textiles. Likewise, export diversification in the case of garments is quite impressive, and there are lessons to be learnt for other Asian developing countries.<sup>35</sup>

It might be possible for other ASEAN developing countries such as Indonesia and Viet Nam to follow the same trajectory, while LDCs such as Cambodia and the Lao People's Democratic Republic probably will have to wait for several years to make this happen. Due to a relatively liberal and problem-free preferential trade regime within ASEAN, increasing intraregional trade to make up for losses in multilateral trade appears feasible. However, it might not be possible in the South Asian region not only because intraregional trade in the area is very low but also because most member countries have included a majority of T&C products under the "sensitive list" negotiated under the Agreement on South Asian Free Trade Area (SAFTA).<sup>36</sup>

*(b) Efforts required*

Developing countries have designed and implemented a variety of survival strategies to keep themselves afloat in the post-quota era. While some of them have paid off as well as provided a sustained advantage to the T&C industry, others may not

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<sup>35</sup> See Adhikari and Yamamoto, 2005, for a detailed account of Thailand's success story.

<sup>36</sup> See Adhikari and Weeratunge, 2006, for a detailed account of regional cooperation on T&C trade in South Asia.

be sustainable. For example, Sri Lanka's continuous search for identifying niche products and product diversification, and the Thai model of South-South trade look more sustainable than the Cambodian strategy, which can be replicated by other countries. Since the competition in this industry is bound to be intense post-2008, there is no substitute for enhanced competitiveness. However, achieving cost competitiveness alone is not enough. It might be possible to replicate one of the above models by fine-tuning them to suit the national conditions. Developing countries should consider a broader range of policy responses to be able to survive in a fiercely competitive post-2008 market.

*(i) Market access*

Improved market access is necessary for overcoming trade barriers. It is in the interest of most developed countries to promote a rules-based, multilateral trading system rather than promoting a "spaghetti bowl" of frequently overlapping rules of origin. However, in the context of Asian LDCs that have been deprived of market access opportunities in the United States market, a campaign for unconditional duty-free market access with flexible rules of origin, taking account of the stage of industrialization of such LDCs, should continue. Other non-tariff barriers should also be addressed as a part of the Doha Round of negotiations, when revived.

*(ii) Human capital*

Increased productivity is a major tool for improving competitiveness at the enterprise level. However, in order to enhance the productivity of the country as a whole, investments in health and nutrition are as important as investments in education and skills development. A combination of public-private partnerships and mobilization of donor support could be an effective way to create better human capital critical for survival in the post-quota world.

*(iii) Value chain management*

Given the increased importance of full-package service delivery, timeliness and consistency in delivery, quality assurance and adaptability, developing country suppliers should try to learn these techniques. Constant improvement and upgrading of trade facilitation measures is a must for achieving these objectives. Such efforts will not only help to improve competitiveness of the T&C sector, but will also provide economy-wide benefits.

*(iv) Sustainability of government support*

In order to reduce the burden on budgetary resources, due both to support provided and revenue foregone, governments could usefully explore several approaches to sector support. First, the potential of public-private partnerships between government and consortia of exporters should be utilized to the extent possible in developing this sector. Cost sharing should be encouraged in every support programme. Second, it may be possible to charge nominal user fees for various services provided by governments to the industry, with a gradual increase of the fees over time. Third, governments should try to obtain technical assistance from various multilateral and bilateral donors to support some of these initiatives. Subject to the outcomes of cost-benefit analysis, this type of support can be a perfect candidate for utilizing the benefits of "Aid for Trade" – a proposal currently being discussed at WTO.

*(v) Access to credit*

Reforms aimed at infusing more competition, including encouraging FDI and joint ventures, can help unlock the potential of the financial sector. This can be achieved through enactment/implementation of competition laws in developing countries. Another option is to empower the regulatory institutions to play a more active role in promoting competition in the financial sector. Moreover, legal reform to improve the loan recovery system could go a long way towards building the confidence of the banking system and providing it with incentives to treat small and medium-sized enterprises more or less at par with other borrowers. If it is not possible to implement either, or both of the instruments mentioned above, a government may have to resort to directed lending. However, this should be conditional on performance requirements and should have a credible "sunset" clause to prevent the same from being captured by vested interests.

*(vi) South-South cooperation*

While the starting point for South-South cooperation is trade, it should go much beyond that. Areas of South-South cooperation for the development of the T&C sector may include the flow of investment not only in the rather "footloose" RMG sector, but also in helping to create vertically integrated facilities by making investments in textiles or accessories industries and the south-south transfer of technology. Countries such as China and India could take the lead in these initiatives. Another possible area of cooperation could be to encourage training institutions in relatively better-off developing countries to partner with such institutions in countries with limited capacities.

## **E. Conclusion**

The post-quota world has not brought about a dramatic transformation in the T&C market or in sourcing patterns. Among the losers of the post-quota era, not all are on the same footing. While some have graduated into the production of higher-value products, others have lost out because of their lack of competitiveness and their inability to adapt. The current status quo is the result of the re-imposition of quotas on China as a part of the temporary safeguard measures agreed by the country at the time of its accession to WTO. Countries that did not manage to withstand competition in the first six months after the phasing out of quotas need to be extremely cautious and make every possible effort to enhance their competitiveness before the expiry of this temporary measure in 2008.

Given the history of protection in this industry and rather strong political economy factors, market access remains the largest single problem for the developing countries. However, this can be resolved mainly through international and regional cooperation. There are several supply-side issues that are impeding the growth prospects of several developing countries. These problems need to be addressed first at the domestic level. International support in the form of "aid for trade" can, however, be instrumental in supplementing the domestic reforms initiatives.

Despite protectionist barriers, the T&C industry has not remained static over the past five decades or so. It keeps evolving due to changing demand of the buyers, sourcing patterns, availability of and access to technology, shifting levels of economic growth and increased consciousness as well as sensitivity towards corporate social responsibility and ethical procurement. While some of these emerging issues offer opportunities for developing countries, others pose challenges. In order to survive in the



present T&C market that is characterized by rapidly changing consumer demand and retailer market power, organizational skills and flexibility become more important than merely achieving cost competitiveness.

Some of the efforts made by governments as well as the private sector to help the T&C exporters survive the phasing out of quotas have produced encouraging results. However, some other endeavours have either not been successful or could yet prove unsustainable. Therefore, concerted efforts should be made by various stakeholders aimed at addressing the market access anomalies and supply side constraints, keeping in view the emerging challenges and the future evolution of the T&C industry and trade.

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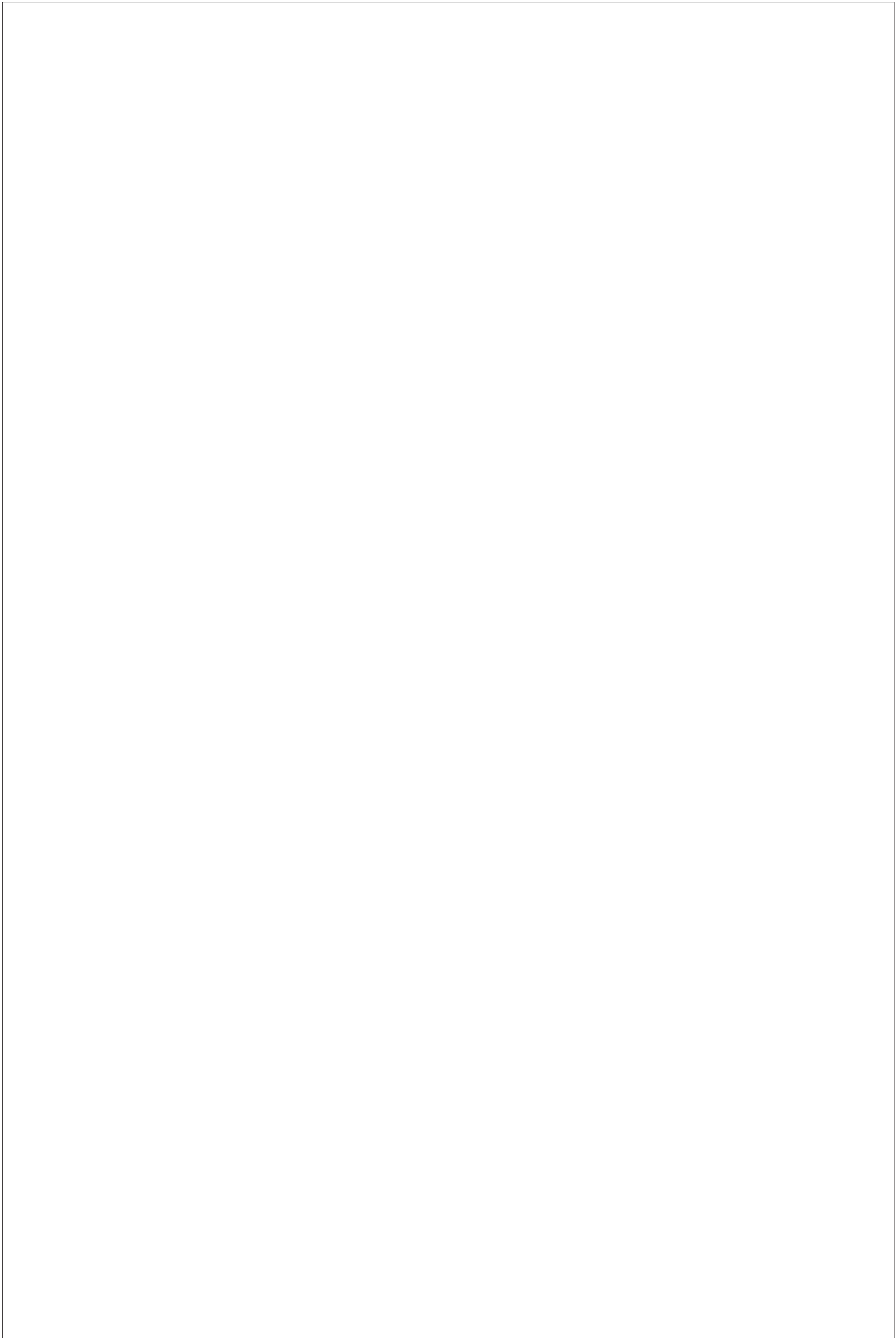
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## II. ECONOMIC IMPACTS OF THE PHASE-OUT IN 2005 OF QUANTITATIVE RESTRICTIONS UNDER THE AGREEMENT ON TEXTILES AND CLOTHING

*By Margit Molnar and Przemyslaw Kowalski\**

### Introduction

This paper provides a quick review of the integration process into GATT 1994 of textiles and clothing products. It also examines the most recent changes in the global textile and clothing markets, and analyses some major strategies adopted by producers in order to survive in the post- Multi-Fibre Arrangement (MFA) global competitive arena.

The Agreement on Textiles and Clothing (ATC) was one of the major achievements of the Uruguay Round. It put an end to a system of managed trade in textile and clothing products that lasted for more than 40 years, first under the Long-Term Agreement Regarding International Trade in Cotton Textiles (LTA) and then MFA. The MFA quota system was adopted as a temporary relief measure in favour of the domestic textile and clothing (T&C) manufacturers in the developed countries. It provided protection for high-cost domestic industries and allowed inefficient exporters to gain access to markets at the expense of more productive ones whose access had been limited. The quota system prompted a scattering of global production and sourcing, and strongly influenced locational decisions of global textile and garment producers.

Not surprisingly, the abolition of the quota system is starting to significantly reshape the global T&C production, trade and investment landscapes by bringing about efficiency gains. However, the benefits of the phase-out are not evenly distributed, and for some countries may only be realized in the medium to long term; this is particularly so, since a significant share of trade with China, the world's top exporter of T&C products, is still restricted by temporary quotas in the European Union and United States markets. Efficiency gains are being realized, inter alia, through the agglomeration of production exploiting scale economies, technology spillovers and reduction in trade costs. Pro-competitive effects in derestricted markets are also being observed.

The consequences of the ATC phase-out differ across exporters, and their preparedness is playing a role in how they manage to cope with competitive challenges in more open markets. Exporters with low costs and high productivity such as China, India and, to a lesser extent, Pakistan and Viet Nam have succeeded in benefiting from enlarged markets, while the phase-out has brought about challenges for OECD and small country producers. A major challenge in OECD countries is how to cope with decreasing labour demand in the textile and clothing industries as a result of increased competition and relocation, while in low-income countries it is how to specialize in products and markets to stay afloat. This group of countries has been given further time

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\* The material presented in this chapter draws on work in progress within the OECD Secretariat. Nevertheless, the views presented are those of the authors and do not necessarily represent the views of OECD or its member countries. Comments by Raed Safadi and Ralph Lattimore, and the excellent research and statistical assistance provided by Laura Munro and Clarisse Legendre are gratefully acknowledged.

for adjustment, which should be better exploited to prepare for fiercer competition in global textiles and clothing markets, and in particular learning from the experience prior to the phase-out.

## **A. Textiles and clothing in world trade: An overview**

### **1. T&C industry offers opportunities for producers in countries with differing endowments and technologies**

The textiles and clothing industry is a large and diverse sector that can be subdivided into distinct parts thus offering opportunities for countries with differing resource endowments and technologies. The traditional division is between the production of natural fibres, fabrics and finished clothing, although the import, distribution and retail segments play an ever more important role in the industry's value chain (OECD, 2004 and 2005; Nordas, 2005).

Natural fibre production is the domain of agricultural economies with access to plants from which the fibre is produced. Synthetic fibre production depends on the ability to innovate or adopt new technologies. Fibres are spun into yarn, and yarn is either woven or knitted into fabric. Fabric is then finished, which involves dyeing, printing or softening, among others. Fabric production is a highly automated, capital-intensive activity and is susceptible to technological advances. Clothing production consists of cutting the fabric, grouping it, tying it into bundles and sewing together. It is labour intensive and workers are specialized in a limited number of tasks that are performed repetitively.

Nevertheless, cutting is often a computer-assisted process and specialized machines are used for different types of sewing (Nordas, 2005). Indeed, as table 1 indicates, labour costs account for a higher share of costs in the clothing sector, although capital shares are not obviously lower; however, this does not apply to the case of Mexico, where the share of capital in total textiles cost is close to two and a half times that of labour. The wearing apparel sector relies relatively less on intermediate inputs compared with the textile sector. Interestingly, up to 34 per cent of intermediate inputs can be of foreign origin, which underlines the extent of internationalization of the industry.

### **2. Share of T&C in world trade is decreasing but remains important**

The T&C industry remains a significant industry in world exchanges, although its share in world trade and its annual output growth rates have been falling over the past few years (table 2). In 2005 – the most recent year for which consistent data are available – world trade in T&C amounted to US\$ 481 billion, or 4.7 per cent of world exports, compared with 6 per cent and 5.3 per cent in 2003 and 2004, respectively. T&C still plays an important role in trade of OECD countries, amounting to 3.5 per cent of their merchandise exports; however, such trade is more critically important for many developing countries where the share of T&C in total exports can reach more than 60 per cent. The share in OECD's trade was 3.5 per cent in 2005 (table 3), which was below the world average; however, this masks a considerable reliance on T&C shipments by countries such as Portugal, Greece or Italy with shares of between 9 to 13 per cent in their total exports.

**Table 1. Cost structure of firms in the textiles and wearing apparel sectors***Unit: %*

	Primary factors				Intermediate inputs	
	Skilled labour	Unskilled labour	Total labour	Capital	Domestic	Imports
<b>Textiles sector</b>						
China	1.5	9.2	10.6	11.6	66.9	10.9
Japan	6.5	17.4	23.9	7.4	58.5	10.2
India	2.7	17.6	20.3	6.6	67.9	5.2
Canada	2.9	21.4	24.3	9.7	36.5	29.4
United States	4.3	19.6	23.9	10.9	56.2	9.1
Mexico	1.9	11.3	13.2	31.1	49.1	6.7
EU15 (average)	4.6	17.3	21.9	7.8	35.9	34.4
<b>Wearing apparel</b>						
China	2.4	17.5	19.9	12.0	60.5	7.7
Japan	3.9	21.7	25.6	11.5	56.0	6.9
India	2.9	20.9	23.8	7.8	66.0	2.4
Canada	4.7	24.6	29.3	9.8	36.9	24.0
United States	5.7	20.9	26.6	6.2	54.1	13.1
Mexico	1.4	9.1	10.5	29.0	56.1	4.4
EU15 (average)	4.0	18.3	22.2	8.3	35.6	33.9

*Source:* GTAP 6 database, base year 2001.**Table 2. World exports of textiles and clothing 2003-2005**

	2003	2004	2005
Value (US\$ billion)	418	466	481
Percentage of world exports	5.96	5.25	4.75
Percentage change for year before	15.1	11.47	3.15

*Source:* United Nations Comtrade Database, 2007.

In contrast to the OECD area, low- and middle-income countries in East Asia, the Pacific and South Asia record particularly high shares with countries such as Bangladesh, Pakistan or Sri Lanka recording shares of, respectively, 84 per cent, 63 per cent and 48 per cent. The high reliance on T&C shipments underlies the important role that this sector plays in development and trade integration of these and other developing countries. More broadly, developing countries account for more than 50 per cent of world textile exports and, as pointed out by WTO, "in no other category of manufactured goods do developing countries enjoy such a large net-trading position" (World Trade Organization, 2006).

**Table 3. Textiles exports as a percentage of total merchandise exports, 2005**

By country grouping	%	20 countries with highest shares <sup>a</sup>	%
All countries – total	4.8	Bangladesh <sup>b</sup>	84.0
		Pakistan	63.9
		Benin	60.5
All high-income	3.5	Sri Lanka	47.5
High-income, non-OECD	7.2	Mauritius	40.8
High-income, OECD	3.1	Tunisia	32.7
OECD 30	3.5	Guatemala	30.9
		Albania	30.4
Low and middle income, East Asia and Pacific	10.3	Morocco	26.9
Low and middle income, Europe	5.7	The former Yugoslav Republic of Macedonia	26.4
Low and middle income, Latin America and Caribbean	3.3	Mongolia	26.1
Low and middle income, Middle East and North America	3.1	Jordan	25.8
Low and middle income, South Asia	24.7	Turkey	25.8
Least developed countries	3.5	Romania	19.0
		Moldova	17.8
		Bulgaria	17.7
		India	17.3
		United Republic of Tanzania	16.1
		China	14.1
		Hong Kong, China	13.5
		Portugal	13.4

Source: United Nations Comtrade Database, 2007.

<sup>a</sup> Countries for which the data were available for 2006.

<sup>b</sup> Data are for 2004.

The EU25 and the United States are the two main destination markets for T&C products, accounting respectively for US\$ 185 billion and US\$ 84 billion, or 44 per cent and 20 per cent of world imports in this category in 2005.<sup>1</sup> Other important importers include Hong Kong, China with nearly 7 per cent of world's imports, Japan (6 per cent), and China (5 per cent). Canada and Mexico each account for approximately 2 per cent of world imports. Remarkably, 2003 and 2004 – the two years that preceded the phase-out of ATC quotas – recorded high growth rates in the textile trade of around 12 per cent, while in 2005 those rates reverted to 2-3 per cent.

The world's largest single country exporter of T&C products in 2005 was China, with US\$ 107 billion or 22 per cent of world exports, followed by Hong Kong, China, with US\$ 40 billion (8 per cent). Yet, the EU25 as a group remains the most important exporter with US\$ 149 billion or 32 per cent of world exports. Other OECD countries with high shares are the United States (4.6 per cent of world exports), Turkey (3.9 per cent), the Republic of Korea (2.9 per cent), Mexico (2 per cent) and Japan (1.7 per cent).

<sup>1</sup> It should be noted that the import and export shares for EU25 referred to in the two following paragraphs include intra-EU25 trade.

### 3. Phase-out of MFA quotas under ATC

#### *(a) ATC phase-out concludes integration of T&C trade into GATT rules*

The 10-year period of eliminating quantitative restrictions on imports of textile and clothing set out in ATC ended on 1 January 2005. ATC was designed to regulate the transition between MFA – an agreement that came into force in 1974 as a replacement of the Long-Term Agreement Regarding International Trade in Cotton Textiles signed in 1962 – and a full integration of textiles and clothing products into the GATT rules.

Even though MFA was aimed at an orderly opening of restricted textile and clothing markets, it was a major departure from the basic GATT rules and, in particular, the principle of non-discrimination and application of quantitative restrictions instead of tariffs. The MFA quotas were applied almost exclusively to imports from developing countries, an application which was also against the pro-development spirit of GATT. The discriminatory nature of MFA, the historical importance of textiles in the process of industrialization and the comparative advantage that many low-wage countries displayed in the labour-intensive segments of textile production created a situation where, as Reinert (2000) pointed out, the inclusion of ATC in the Marrakech Agreement was seen as crucial to the success of the Uruguay Round in the minds of many developing country members of WTO.

Integration of textiles products into GATT 1994 was considered the main pillar through which ATC was supposed to deliver market opening. For the European Union, Canada, Norway and the United States, which carried the MFA restrictions into ATC, the integration of a product into GATT 1994 had two consequences (World Trade Organization, 2004). First, any quantitative restriction maintained on such a product under ATC was eliminated. Second, the transitional safeguard mechanism could not be invoked any more with respect to imports of such a product.<sup>2</sup> For WTO members who did not maintain quotas under MFA, the effect of implementing integration programmes was to remove the possibility of having recourse to the transitional safeguard mechanism.

Products were to be integrated in four cumulative steps – 16 per cent of the 1990 volume of trade by 1 January 1995, 33 per cent by 1 January 1998, 51 per cent by 1 January 2002 and 100 per cent by 1 January 2005.<sup>3</sup> In this regard, a back-loading was built into the system, as the last 50 per cent of the volume integration was scheduled to occur on 1 January 2005. Additionally, the choice of products to be liberalized at each stage was left to the concerned countries as long as the integrated

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<sup>2</sup> ATC regulated the application of transitional safeguards, in the form of quantitative restrictions that could be utilized also by countries that had not maintained quotas under MFA on imports of products covered by ATC and which cause serious damage or a threat thereof to the import-competing domestic industry. Such restrictions appear to have been important only for selected bilateral trade flows involving mainly the United States and some Latin American countries in the first half of the ATC period. In fact, in ATC Stage 3 (1 January 2002 to 1 January 2005) there were only two recourses to this mechanism, both by Brazil.

<sup>3</sup> Norway eliminated all restrictions in three quicker steps – 1 January 1996, 1 January 1998, 1 January 1999 and 1 January 2001. For Norway the potential effects of integration of products into GATT 1994 became equivalent to members who did not carry over the restrictions but retained the right to use the provisions of Article 6 of ATC on the transitional safeguard mechanism.

items comprised four categories of products: (a) tops and yarns; (b) fabrics; (c) made-up textile products; and (d) clothing. Yet, the relatively broad product coverage of ATC implied – especially in its initial phases – that the integration of products into GATT did not necessarily cover the products on which MFA quotas existed in the first place.<sup>4</sup> In addition, different MFA quotas had different restrictiveness, which was demonstrated by varying quota fill rates; those non-binding quotas were the ones to be integrated first. Furthermore, the commitments were set in terms of volumes, not values, which implied that the first two stages of ATC were characterized by integration of low-value added items (Reinert, 2000).

Taken together, these rules appear to have created possibilities of postponing the liberalization of the most sensitive products and, indeed, the first two stages of ATC were skewed away from clothing products that have the highest low-skilled labour content (Reinert, 2000). Yet, while many would like to have seen a more gradual integration of T&C products over the ATC period, the back-loading of the liberalization process should not have been unexpected, since some of the restricting countries had made clear from the start that they intended to integrate the most sensitive products at the end of the 10-year period, i.e., on 1 January 2005 (World Trade Organization, 2004).

In addition to the integration of textiles and clothing products into GATT, ATC accelerated the annual growth rates of quotas carried over from MFA. These growth rates were supposed to be increased by 16 per cent by 1 January 1995, 25 per cent by 1 January 1998 and 27 per cent by 1 January 2002. What this pillar of ATC meant was, in practice, that if the quota was set to increase by 6 per cent annually<sup>5</sup> under MFA it should increase by  $6 \times 1.16 = 6.96$  per cent annually under the first phase and by  $6.96 \times 1.25 = 8.7$  per cent annually under the second phase of ATC, and so on. Whether this system of quota growth has delivered significant liberalization is disputed. As per Nordas (2005), quoting Reinert (2000), the accumulated aggregate increases of the quotas over the ATC period in the European Union were 18 per cent and in the United States 25 per cent above the levels that they would have been with the continuation of MFA.

There has been full compliance with the quota growth rate and volume integration commitments at each ATC stage. However, as indicated in Textiles Monitoring Body reports to the Council for Trade in Goods (World Trade Organization, 2004), despite the fact that ATC had provisions and encouraged quicker liberalization, most importing countries had not gone beyond the minimum liberalization required for each stage. In fact, the most sensitive products were only liberalized at the end of 2004.<sup>6</sup>

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<sup>4</sup> Many analysts have pointed out that the choice of products covered by ATC and included in the Annex to the Agreement could be seen as working against the objective of liberalizing trade in textiles and clothing. The list included some products that had never been subject to restrictions in any bilateral agreement under MFA. In effect, the list from which the ATC countries selected products for integration at each stage was wider than the list of products actually restricted under MFA by any individual importer.

<sup>5</sup> Under MFA, the restricted textile and clothing were limited to 6 per cent annual growth, although in exceptional circumstances these growth rates could be set at lower levels.

<sup>6</sup> Nevertheless, Canada, for example, has reported integration going beyond the set minima in its submissions to the Textiles Monitoring Body of WTO.

If the number of phased-out quotas could be taken as a proxy for the extent of liberalization, the figures provided in table 4 – reproduced from a communication by the International Textiles and Clothing Bureau (ITCB), an intergovernmental organization of developing countries exporting textiles and clothing – would suggest that back-loading was even more significant than would be suggested by the agreed cumulative integrated volume targets. The United States would integrate 89 per cent of the quotas it had in 1990 only in the final stage of ATC; in the case of the European Union and Canada, it would be 70 per cent and 79 per cent, respectively. In any case, it is clear that even though ATC was successful in phasing-out the MFA quotas, the process was not gradual and the major reform occurred at the end of the ATC existence.

**Table 4. Pace of quota abolition**

*(As contained in the communication from ITCB members)*

	United States	EU	Canada	Norway
Total number of quotas at start of ATC <sup>a</sup>	937	303	368	54
<b>Of which phased out:<sup>b</sup></b>				
<b>(a) Stage 1 (from 1995):</b>				
By integration under Article 2.6	0	0	8	0
By early elimination under Article 2.15				46
<b>(b) Stage 2 (from 1998):</b>				
By integration under Article 2.8(a)	3	21	26	0
By Article 2.8(a) and Article 4	2			
By early elimination under Article 2.15	10 <sup>c</sup>			8
<b>(c) Stage 3 (from 2002):</b>				
By integration under Article 2.8(b)	69	57	42	0
By Article 2.8(b) and Article 4	2			
Under bilateral agreements		13		
Under AGOA	17			
Total number of quotas abolished as of March 2004	103	91	76	54
<b>Quotas to be abolished on 1 January 2005</b>	<b>834</b>	<b>212</b>	<b>292</b>	<b>0</b>

Source: World Trade Organization, 2004.

<sup>a</sup> Including specific limits and sub-limits notified under Article 2 of ATC.

<sup>b</sup> Numbers do not include product categories for which quotas have been eliminated only partially.

<sup>c</sup> Eliminated only for Romania, not for any other restrained member.

*(b) Timing and cross-country distribution of economic benefits remain difficult to identify*

Overall, despite the back-loading, ATC was an unquestionable improvement over MFA. Yet, the timing and cross-country distribution of its economic benefits remain difficult to pin down, which is, in part, related to the complexity of the changes it triggered. First, each of the four countries that carried the MFA restrictions into ATC set them on the basis of different product classifications. Second, they maintained different initial quotas that were not related to their bilateral trade potential in any particular way. Third, they set different annual quota growth rates. Fourth, at the product category level, some limits were specified in the number of imported items, some in square metres and some in kilograms, making the assessment of their restrictiveness and cross-country

comparisons extremely difficult. Fifth, existing quotas could have been changed in the interim as long as the targets set for integration stages were obeyed. All these factors imply that the extent of restrictiveness of MFA, and consequently the extent of liberalization brought about by ATC, was specific to each individual bilateral trade relation. Hence, it should be borne in mind that the concept of a generalized assessment of the economic impact of MFA and ATC is limited.

#### **4. Post-ATC policy changes in the United States and European Union markets**

On the one hand, the developments in the first few months immediately following the final stage of ATC were predictable given the back-loading of quota removal. On the other hand, their precise magnitude could not be foreseen, among others, for the reasons given in the preceding paragraph. During January-March 2005, for example, imports by the United States of cotton trousers from China increased by 1,500 per cent and those of knit cotton shirts by 1,250 per cent compared with their levels recorded during the same period in 2004.<sup>7</sup> Other low-cost producers that have significantly increased their exports to the United States include Bangladesh, India, Indonesia, Pakistan and Viet Nam, among others. In late April 2005, the United States Committee on the Implementation of the Textile Agreement (CITA) began considering requests for safeguard action on seven product categories imported from China. Approximately one month later, quantitative limitations on imports of seven textile categories were established through 31 December 2005 and bilateral negotiations with China were requested. Upon receipt of the request, China agreed to limit its exports to a level not greater than 7.5 per cent above the amount shipped during the preceding 12 months.

The bilateral talks between the United States and China that were concluded in November 2005 resulted in a memorandum of understanding in which reintroduction of temporary quotas for 21 product categories was agreed under the special T&C safeguard clause of China's WTO accession protocol. The temporary quotas were imposed on several items including cotton shirts, cotton trousers and underwear. They were reported to cover 90 per cent of imports restricted in 2004. Depending on the product category, the agreement allowed for an increase of between 173 per cent and 640 per cent in the biennium 2004-2006, between 12.5 per cent and 16 per cent in 2007, and between 15 per cent and 17 per cent in 2008.

Similar to the United States, in the European Union the beginning of 2005 brought about significant increases of imports from China. The highest percentage increases with respect to the first quarter of 2004 were recorded for pullovers (534 per cent), men's trousers (413 per cent), blouses (186 per cent) and bed linen (164 per cent). Investigations for evidence on market disruptions caused by the surge of imports from China were initiated at the end of April 2005 and a memorandum of understanding was reached in June 2005. The agreement limited, until end 2007, China's exports in 10 product categories for 2005, 2006 and 2007, with annual quantity growth rates ranging from 10 per cent to 12.5 per cent from the base imports level in April 2004-March 2005. The restricted items included pullovers, men's trousers, blouses, T-shirts, dresses, brassieres, flax yarn, cotton fabrics, bed linen, and table and kitchen linen.

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<sup>7</sup> Based on communications of the US Department of State.



Hence, the additional transitory protection provided to the domestic textile industry through the reintroduction of quantitative restrictions in the European Union will be one year shorter than in the United States. There are also differences in product coverage that are likely to differentiate the third-country impacts. For example, the United States restricted cotton knit shirts while the European Union did not; the European Union restricted dresses while the United States did not. While one should not perhaps be reading too much into these differences, it is possible that to a certain extent they do influence the differential impacts that the new quantitative restrictions have on third-party textile suppliers competing with China in the European Union and the United States markets, such as Bangladesh, India or Viet Nam.

### **5. Major post-ATC changes in T&C trade in the European Union and United States markets**

After the initial shock, the European Union quotas curbed the surge in imports from China. However, China's competitors are being put under increasing pressure each year.

Even with the reintroduction of temporary quotas, 2005 and 2006 brought about significant changes in the European Union and the United States markets. The value of China's textiles and apparel exports to the EU25 increased by 43 per cent in 2005, which was the largest increase across all the suppliers. This surge was mainly driven by apparel products, which grew by 45 per cent, while textiles exports increased by 22 per cent. India and Viet Nam have also experienced growing exports amounting to 18 per cent and 6 per cent, respectively; this growth was largely driven by wearing apparel. Other exporters that enjoyed small increases were the United States, Turkey and Bulgaria (figures I to III).

However, for most of the other suppliers, the value of exports to the EU25 decreased in 2005. One group of countries with negative impacts include those enjoying some sort of preferential access to the European Union market, such as: (a) Morocco (-7 per cent) and Tunisia (-13 per cent), both of which are parties to the Euro-Mediterranean Partnership Agreements; (b) Bangladesh (-5 per cent), which enjoyed duty and quota-free market access within the Everything but Arms initiative; and (c) Mauritius, which enjoyed preferential access granted to the ACP countries.<sup>8</sup> Nevertheless, several other suppliers such as the Republic of Korea (-24 per cent), Australia (-29 per cent) and Thailand (-8 per cent) also faced decreasing demands for their shipments.

Remarkably, the negative 2005 trends in the EU25 market were reversed in 2006 for almost all suppliers. The value of Chinese exports grew by 13 per cent – a marked slowdown from the previous year – and the value of exports increased for most other suppliers including Bangladesh (30 per cent), Viet Nam and Hong Kong, China (47 per cent each), Sri Lanka (21 per cent), Cambodia (16 per cent), Pakistan (13 per cent) and Mauritius (10 per cent). This likely illustrates the impact of the temporary quotas, which apparently had succeeded in curbing the surging imports from China only in 2006. This is likely to do with the fact that even though a quota

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<sup>8</sup> Box 2 provides a discussion of Madagascar's textiles and clothing industry, its reliance on preferential trade and ways of coping with the MFA phase-out.

for 2005 was also established, it was based on the import level during April 2004-March 2005, which covered the first three months of China's unlimited access to the market.

As far as the most current data (January-March 2007) are concerned, there was an increase in the imports of textiles and apparel from China of 36 per cent over the same period in 2006, which suggests acceleration with regard to the rate of growth for the whole of 2006 (22 per cent). If only apparel is taken into account, the acceleration in growth rates is from 13 per cent to 39 per cent. This suggests that with the increases in the temporary quotas, China's competitors in the EU25 market are under increasing pressure. This is also visible in the rates of export growth calculated for these suppliers, which, especially in apparel, were much lower in the first quarter of 2007 than they were in 2006.

In the United States market, 2005 and 2006 brought about even larger increases in imports from China. The value of textiles and apparel imports from China increased by 54 per cent in 2005, which was the largest increase across all suppliers. This surge was mainly driven by apparel products, which grew by 70 per cent, while textiles exports increased by 29 per cent. The impacts on third countries in the United States market give a clearer picture with Bangladesh, Cambodia, India, Indonesia, Pakistan and Viet Nam all increasing their exports by between 6 per cent and 29 per cent. With the exception of India and Pakistan, this trend is quite clearly driven by apparel exports since, in fact, most of these countries' exports of textiles have declined. Many suppliers lost market shares, including the Republic of Korea (-26 per cent), Turkey (-9 per cent), NAFTA members Mexico (-7 per cent) and Canada (-8 per cent), Caribbean Basin Initiative countries (-4 per cent), Central American Free Trade Agreement (CAFTA) (-4 per cent), Guatemala (-7 per cent) and Honduras (-2 per cent) (figures III and IV).

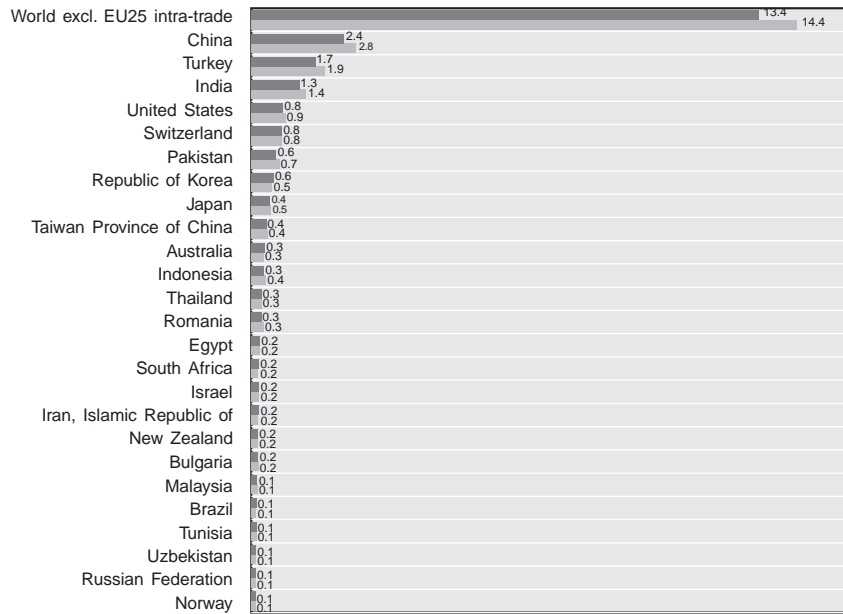
In contrast to the EU25 market, 2006 did not bring about a reversal in these trends in the United States market, even though the increase of imports from China was halved from 54 per cent in 2005 to 21 per cent in 2006. In fact, for many Asian suppliers other than China the growth rates of exports increased with regard to 2005. This was the case for Bangladesh, Indonesia and Viet Nam, among others. At the same time, the decline in exports for countries such as Mexico, Canada and Turkey was more pronounced in 2006 than in 2005.

The data for 2007 confirm the conclusions drawn already for the European Union: increasing quotas on Chinese imports put increasing pressure on other suppliers. In January-March 2007, imports of Chinese apparel grew by a high of 63 per cent from the same period in 2006 – almost as quickly as in 2005. It can also be observed that in many countries that were losing their market shares in 2005 and 2006, this process has continued in 2007 at an even faster pace (figures III and IV).

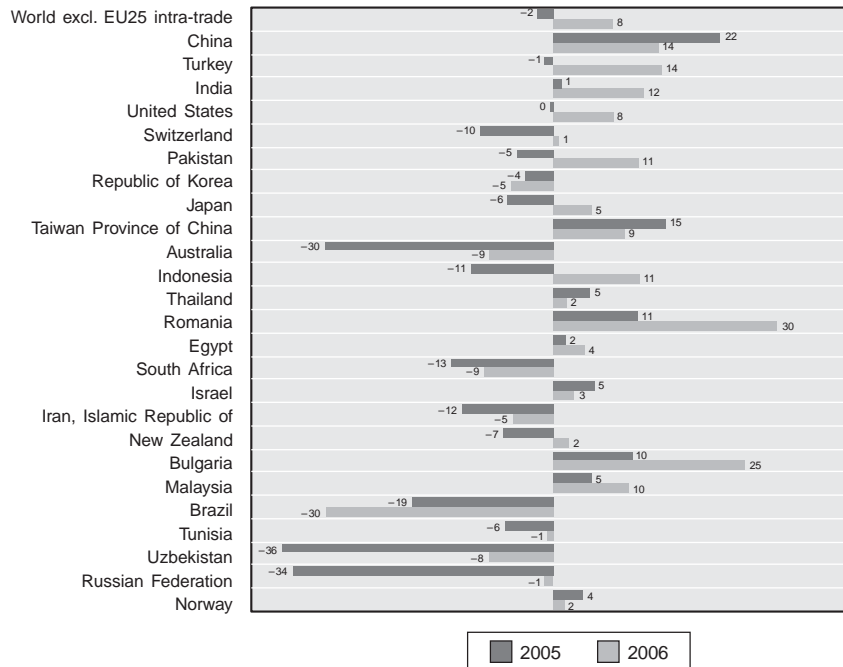
The fact that many of the exporters that experienced declining exports to the European Union following the abolition of quotas in 2005 were gaining back their market shares in 2006, and that a similar situation did not happen in the United States market, might suggest that the temporary measures introduced by the European Union might have been more binding although they varied by product category.

**Figure I. EU25 imports of textiles by country and region, 2005 and 2006**

*I(a). Value in billions of Euros*



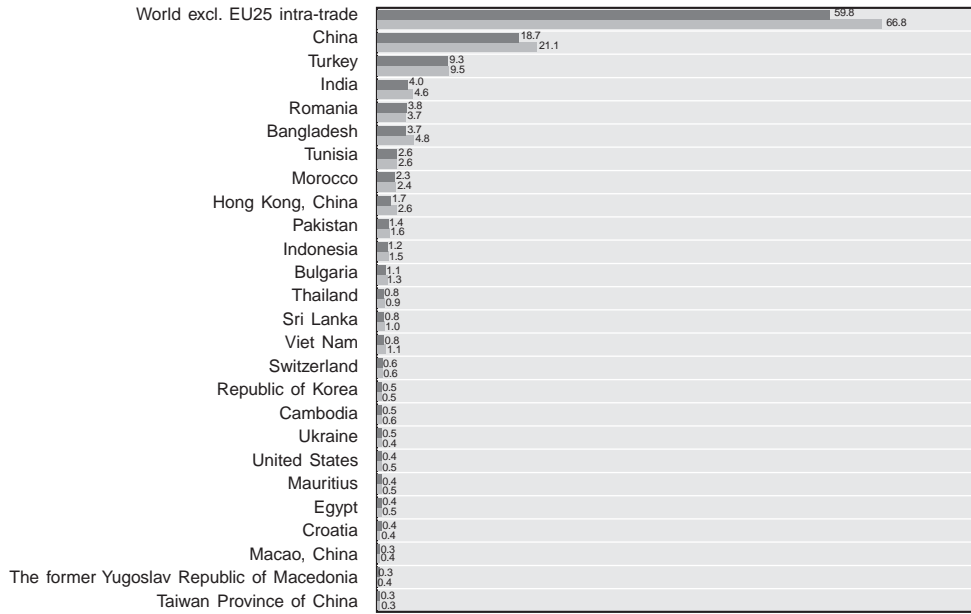
*I(b). Percentage change*



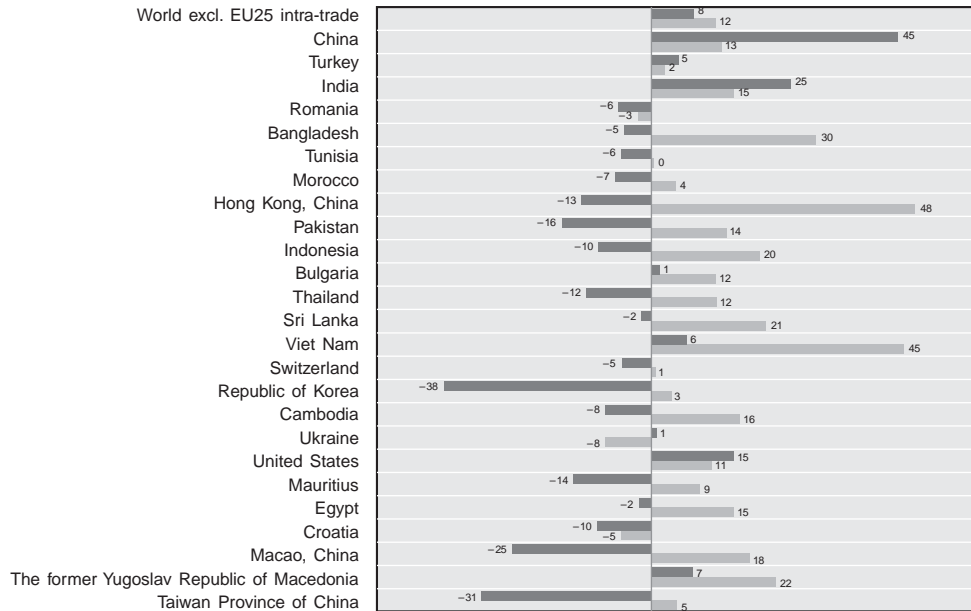
Source: Eurostat COMEXT, 2007.

**Figure II. EU25 imports of apparel by country and region, 2005 and 2006**

*II(a). Value in billion euros*



*II(b). Percentage change*

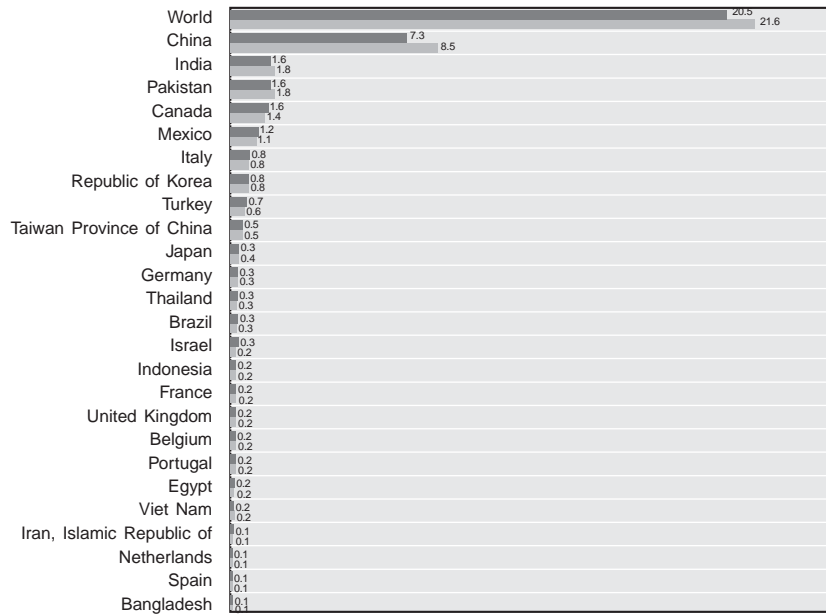


■ 2005    ■ 2006

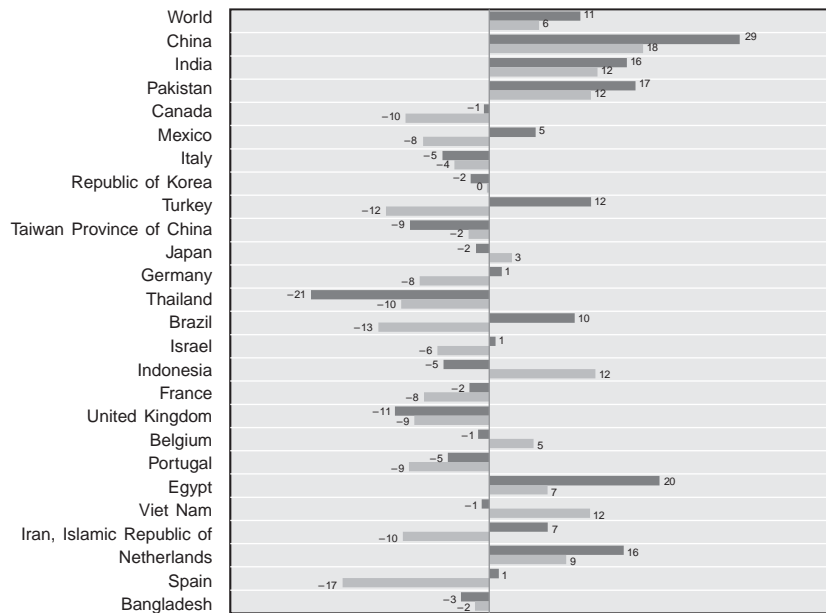
Source: Eurostat COMEXT, 2007.

**Figure III. United States imports of textiles by country and region, 2005 and 2006**

*III(a). Value in billion United States dollars*



*III(b). Percentage change*

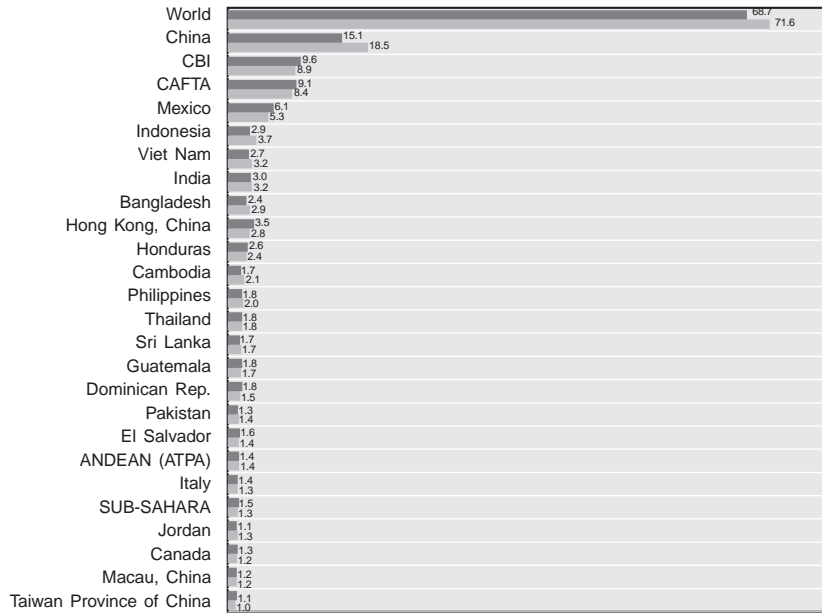


■ 2005    ■ 2006

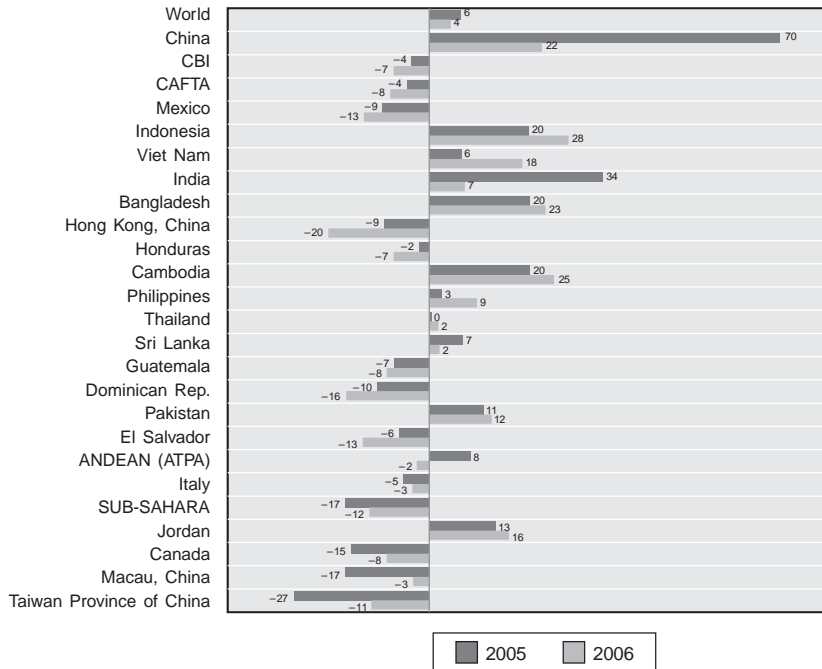
Source: Office of Textiles and Apparel, 2007.

**Figure IV. United States imports of apparel by country and region, 2005 and 2006**

*A. Value in billion United States dollars*



*B. Percentage change*



Source: Office of Textiles and Apparel, 2007.

## B. Survival strategies

The post-ATC setting has provided an opportunity for all exporters to compete in global markets under more equal conditions, although the temporary quotas that were reintroduced by the European Union and the United States during the course of 2005 did not make the quota removal process complete. In addition, tariff and non-tariff barriers on textile and clothing products persist at levels that are higher than in other sectors.

The economic implications of T&C quota removal differ slightly across different theories of international trade. The “traditional trade theory” would predict increased specialization between countries with different endowments or technologies of production. Capital-abundant countries, for example, would tend to specialize in capital-, skill- and research-intensive segments of the industry.

The predictions of the “new trade theory” are not very different: high-income countries would also tend to concentrate on industries with high levels of innovation and in products on the upper quality segment. This specialization may be both vertical (i.e., differentiation by product quality) and horizontal (i.e., differentiation by product variety), given that not only different product categories but also products in the same category can be produced with techniques of different capital, skill and research intensities. Nevertheless, the new trade theory allows for increasing returns to scale and product differentiation. Countries producing differentiated products will engage in intra-industry trade, and larger volumes of trade will be observed between countries of relatively similar size.

The “economic geography theory”, unlike the other two theories, which do not address the spatial implications of trade, would predict that producers in the proximity of the large market would benefit first, leading to a formation of a core and periphery. The core would specialize in industries with increasing returns to scale, and spillovers should enforce the advantages of large markets as will forward and backward linkages. The periphery will specialize in low-wage industries, industries with less product differentiation and limited spillovers. This initial advantage, however, could be eroded with the decrease in transportation costs, with the emergence of agglomeration dis-economies or with a faster rise in wages in the core.

The analysis in this chapter suggests that the phase-out of textiles and garments quotas indeed prompted both developed and developing country producers to adopt new strategies in their quest for survival in the global competitive arena. On the one hand, countries that had formerly underutilized their quotas (i.e., less efficient producers) were put under increasing pressure to secure their markets. Formerly restricted producers with high aggregate efficiency, on the other hand, were provided with the opportunity to enter previously unconquerable markets. In an environment that is increasingly based on market principles, exporting countries could choose their strategies according to their relative strengths. Some of the strategies adopted by producers include specialization, both vertical and horizontal, reorientation of markets and relocation overseas. Vertical specialization, which involves differentiation by quality within the same product category, is often achieved through the upgrading of technology. In contrast, horizontal specialization is differentiation by product variety.

The following preliminary analysis of available post-ATC data suggests that vertical and horizontal specialization have been adopted by OECD as well as developing producers. The strategy of reorientation of markets has been followed by many developing country producers, while relocation has been typically adopted by OECD producers.

## 1. Vertical differentiation

A promising strategy for survival in the competitive arena, in particular for more efficient, high-quality producers, is to differentiate their products by quality. For established high-quality producers this mainly means withdrawing from low-cost segments and focusing on high value-added products. For latecomers, this strategy can be pursued by, for example, upgrading production technology. New technology facilitates achieving higher aggregate efficiency, which in turn leads to a higher quality of every good (i.e., produces the quality margin). Moving up the value-added chain induces vertical specialization or differentiation by quality. The prerequisite for such a strategy is the acquisition of new technology through imports or research and development, or both. Some of the producers such as China, for example, have been very successful in adopting this strategy; in preparation for the post-ATC trading environment, China started to import advanced textile machines mainly from Germany and boosted research and development investment in the textile and garments industry.

### *(a) Comparison of unit prices reveals evidence for some differentiation strategies*

To examine which producers chose to differentiate their products vertically, a comparison of unit prices of different producers in third markets is performed, assuming that unit prices reflect quality within the same product category (Ito and Fukao, 2005). Unit prices of major exporters in major OECD markets obtained from the United Nations Comtrade Database are compared at the 6-digit level of the HS classification for 1990-2006, where available. Unit prices in the detailed product category are expressed in terms of percentage of the “benchmark” unit price. These prices are then weighted by value shares and aggregated to the 2-digit level; then the share of products, defined as “similar” or “very different” in terms of quality from the benchmark, is calculated over time.

In the United States market, Italian producers, for example, have clearly adopted the strategy of vertical differentiation. Nearly 80 per cent of other competitors’ products are less than a quarter of the Italian unit price and only a few producers approach the Italian unit price (defined as within 10 per cent of the Italian unit price) in a limited number of product categories.

When choosing China as a benchmark, differentiation strategies of its major competitors in the United States can be inferred. In the clothing categories (HS 60-63), among China’s top 10 competitors<sup>9</sup> only Canada chose vertical differentiation into higher-quality, higher-priced products (defined as at least double the Chinese unit price). However, Honduras, and pre-2005 Bangladesh and Pakistan decided upon lower-priced (defined as less than half the Chinese unit price) product, as shown in figure V(A).<sup>10</sup> Figure V(B) shows that during the past 10 years, India and Indonesia have been exporting products to the United States that are of similar quality as those from China, while Bangladesh, Pakistan and Viet Nam started adjusting their prices to those of China as of 2005. By 2006, more than half of all clothing exported to the United States market had a unit price very close to that of China (defined as within a 10 per cent range of the Chinese unit price).

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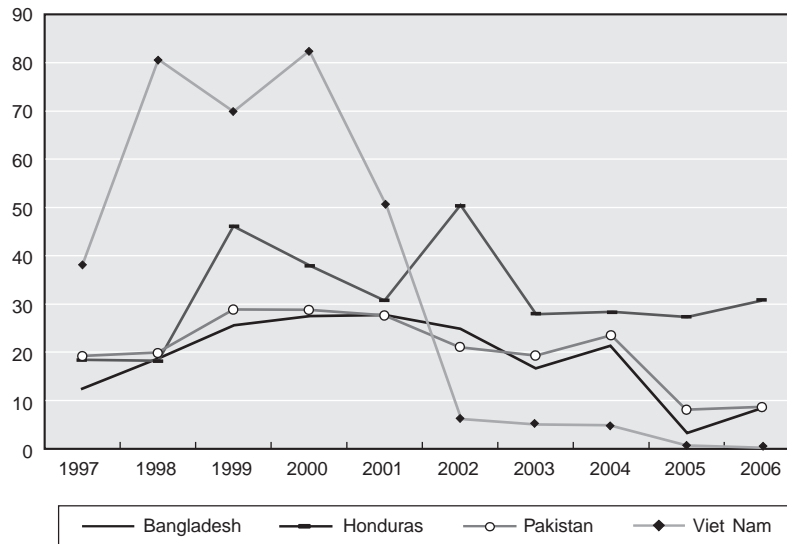
<sup>9</sup> Italy is not among China’s top 10 competitors.

<sup>10</sup> In the case of Honduras, the lower pricing may be related to geographical proximity.

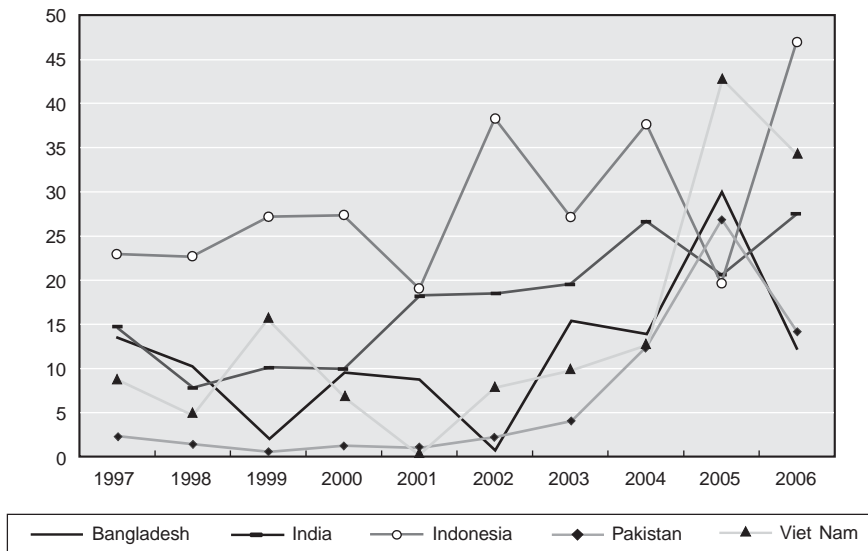


**Figure V. Positioning strategies of selected major competitors of China in the United States market, 1997-2006**

*A. Few exporters able to undercut Chinese prices (share of products with less than half the Chinese price in per cent)*



*B. China clothing prices post-2005 (share of clothing exports within 10 per cent of Chinese unit price in per cent)*



Source: OECD calculation from United Nations Comtrade Database, 2007.

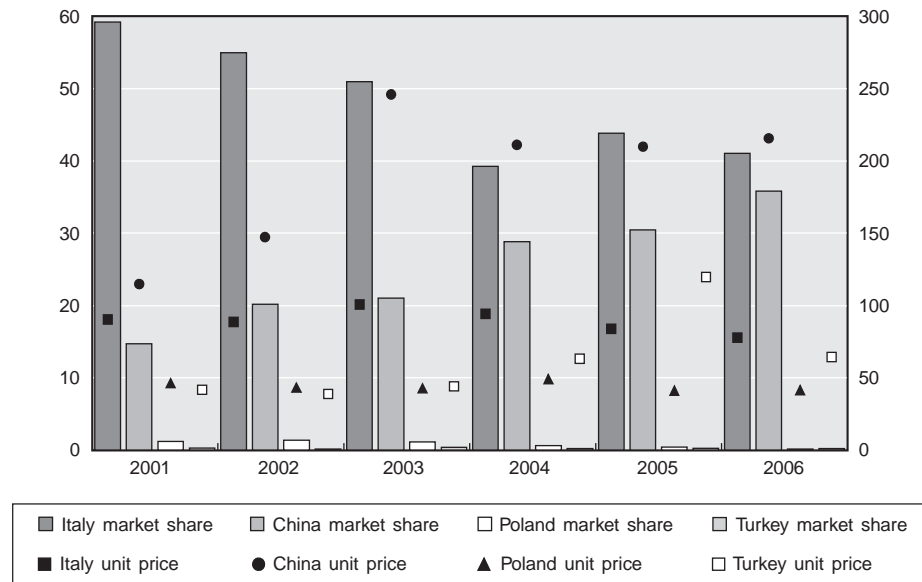
This strategy of “following” Chinese prices became particularly apparent after 2005, while in the era of protected markets the share of such products was a mere 15 per cent (2001). Viet Nam, which was previously a lower-cost producer (with more than 80 per cent of its clothing exports to the United States being less than half of the Chinese unit price prior to China’s entry into WTO), has increasingly been producing the same quality products as China. It is interesting that these countries that have not differentiated themselves from China, or have tried to lower their unit prices relative to China, have gained market shares in the United States while countries that appeared to have differentiated themselves by producing more expensive and presumably higher-quality products, lost shares.

*(b) Easily differentiable product categories show trend towards polarization in all G3 markets*

A look at the detailed level of product categories reveals that the strategies adopted by exporters differ largely by product. In some product categories where it is relatively easy for consumers to differentiate by quality due, to a large extent, stronger branding, there is a clear vertical differentiation among producers. A typical example is silk neckties, where the difference between unit prices can be as large as 20 times. Figures VI A-C show that in the three markets examined (Germany, Japan and the United States), there is a trend towards “polarization”; high-quality, high-cost producers succeed in maintaining substantial market shares while medium- to low-cost producers in general are losing to China. Such evolving market structures reflect product differen-

**Figure VI. Polarization of necktie prices**

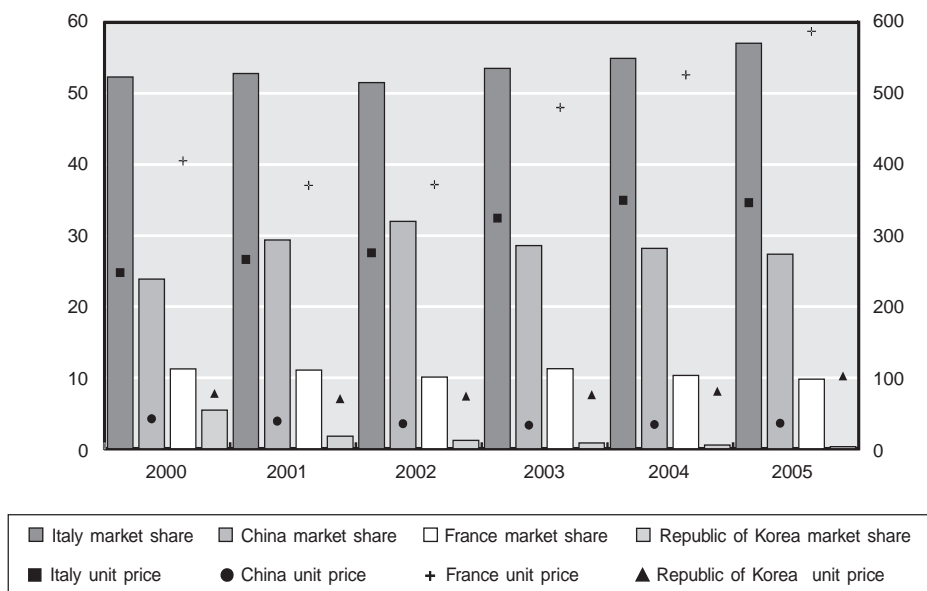
*A. Market shares (left axis) and unit prices (right axis) in the German market*



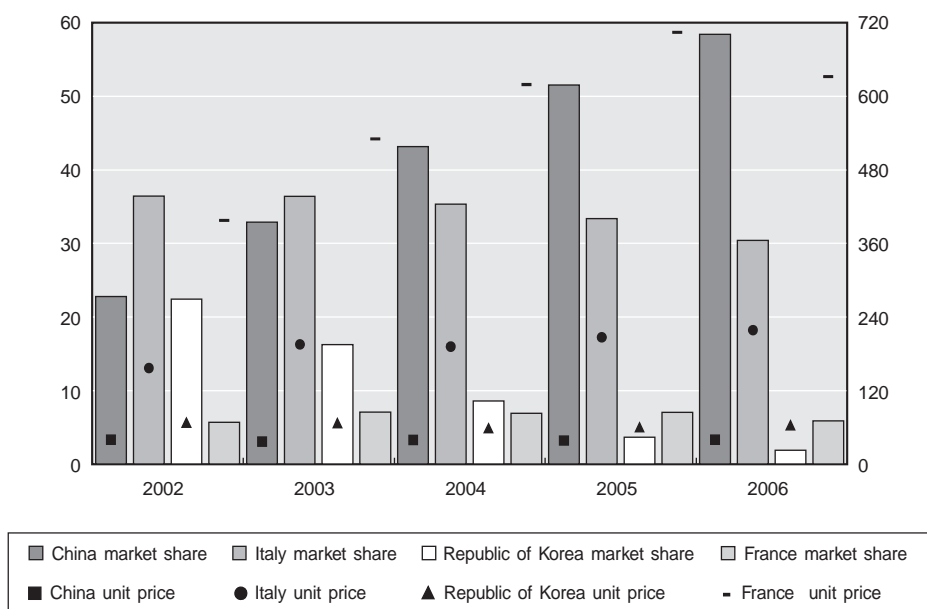
*(Continued)*

Figure VI. (continued)

B. Market shares (left axis) and unit prices (right axis) in the Japanese market



C. Market shares (left axis) and unit prices (right axis) in the United States market



Source: OECD calculation from United Nations Comtrade Database, 2007.

tiation by quality as well as fierce competition in the lower-price segments. Different price elasticities of consumer demand may also carry some explanatory influence in the choice of major exporters.

Notwithstanding some major common strategies of suppliers in the G3 markets, slight differences across markets remain. In the German market, Italy's rising unit prices for silk neckties since 2001 has led to a decline in its market share from 60 per cent to slightly above 40 per cent just in five years. Nevertheless, Italy remains the largest exporter. China is catching up fast, however, with its market share having reached nearly 36 per cent by 2006. Viet Nam is the third largest exporter with rapid market share gains. In the Japanese market, there is a clear "polarization" trend; high-cost producers such as France, Italy and the United Kingdom are maintaining their market shares, while medium- to low-cost producers are losing out to China. Notwithstanding China's rapid gains in terms of market share (from 0.1 per cent in 1990 to more than 27 per cent in 2005), Italy succeeded in maintaining its share above 50 per cent. The biggest loser in the Japanese silk necktie market is the Republic of Korea, with its market share declining from nearly 28 per cent in 1993 to 0.3 per cent in 2005.

In the United States market, Italy's share has more than halved during the past 15 years (from 65 per cent in 1991 to 30 per cent in 2006); however, Italy's share remains high despite the slight increase in the unit price. During the same period, China's share increased from about 1 per cent to 58 per cent with only slight decreases in the unit price. Similarly, in the United States market, high-cost producers such as France and the United Kingdom have maintained their market shares while medium- to low-cost producers' shares have dropped sharply. The Republic of Korea is a major loser also in the United States market, with its share falling from above 25 per cent to less than 2 per cent during the five years to 2006.

*(c) Prices of less differentiable products converge in Germany and Japan*

In other product categories, where vertical specialization may be less feasible due to the difficulty for consumers to differentiate between products by quality, unit prices have converged. A typical example is men's cotton shirts, where prices of different producers had come very close to each other in the German market by 2006. The convergence in unit prices was accompanied with changes in market positions of major exporters, particularly since 2005. The biggest gainer in the German market is China, which increased its market share by 650 per cent from 1990 to 2006, to reach a share of above 14 per cent in 2006. The bulk of the market share gain by China was realized between 2004 and 2005 as a result of the phasing out of quotas. Bangladesh, which was previously the biggest player, had been overtaken by not only China but also India and Turkey by 2006. Apart from China, some other producers previously constrained by quotas such as India, Indonesia, the Lao People's Democratic Republic, Malaysia, Myanmar and those in proximity such as the former Yugoslav Republic of Macedonia, also gained market shares. Some smaller players exited the market very likely due to economies of scale and/or high transportation costs. (This may be the case with many Latin-American producers, such as Barbados, Bermuda, Bolivia and Cuba, which abandoned the German market).

The variation in unit prices of men's cotton shirts in the Japanese market is similarly limited. Although Japan has not imposed quotas, there have been significant changes in market shares of major exporters over the past decades. The most important change is China's gain, its market share increased from a third in 1990 to

over three-quarters in 2005. At the same time, other countries such as India, Malaysia, Thailand and the United States lost market shares and some high-cost producers (e.g., Belgium and Finland) exited the market. Given the fact that Japan did not impose quotas, this process can be considered as driven by market forces and characterized as survival of the "fittest".

*(d) Much less convergence in the United States*

In the United States market, the convergence of unit prices for men's cotton shirts has been less extreme than in the German or the Japanese markets. Although prices of the most expensive exporter (Switzerland) can be as much as 50 times higher than the prices of the cheapest exporter (Jamaica), their market shares are negligible. The top 20 producers in terms of market share set prices within the range of 300 per cent of the lowest price with the exception of Italy, which differentiated into higher-quality segments, and set its prices above 400 per cent of its competitors' average unit price and more than 1,000 per cent of the lowest price.

It appears that the different post-2005 unit price evolution patterns of men's cotton shirts in the German and United States markets might be best explained by the different trade policies adopted in reaction to the surge of Chinese imports after the phase-out of quotas. While both the European Union and the United States re-imposed quotas on Chinese products in 2005, the product categories subject to quotas differed. The United States target included woven shirts while the European Union target did not. This has resulted in more enhanced competition in this product category in Germany, while in the United States exporters not subject to quotas can offer lower prices than can their Chinese competitors (and maintain higher market shares). In Japan, where the most efficient suppliers have not been restrained by quotas, unit prices of different suppliers move together.

## **2. Horizontal specialization**

As a result of enhanced competition in major markets, many producers chose to concentrate on fewer product categories in their quest to increase their market shares in those markets. Apart from the efficiency gains related to the reduction of import sources, such a strategy also allows better exploitation of economies of scale, thereby benefiting both importers and producers.

The extent of the similarity of the different producers' export structures is important, as it heavily influences their positions in third markets. Two countries with a very similar export commodity structure, for example, can differentiate their products by quality or, if their qualities are also similar, can enter into price competition in global markets. In addition, they can geographically slice markets. This latter strategy, however, is usually not voluntarily chosen by exporters, but is driven by transportation costs or other factors such as bilateral or regional agreements, historical or cultural ties etc. One possible measure of the degree of similarity is the Kreinin-Finger (1979) index. If the commodity composition of two countries' exports is identical, this measure takes a value of 100, while in case of complete dissimilarity the value of the index is 0. As producers face different competitors in different destination markets, the similarity of export structures is examined by market. In addition, given that the textile and clothing industries generally need different endowments, similarities in exports of these two commodities need to be looked at separately.

*(b) China and India closer to OECD producers' export structures but further from each other in Germany*

In general, the major competitors' export structures have become more similar in the German market over time, but there are some clear trends of horizontal differentiation in some product categories. In the textile market (HS 50-59), the most significant trend is the move by China up the value chain; while in 1990, it showed little similarity with other producers except Hong Kong, China, by 2006 its export structure has become closer to that of Italy or Poland. Bangladesh and India also export increasingly similar textile commodities as other producers to Germany, nevertheless the overlap of their exports with those of other countries still remains low. The developments in the clothing (HS 60-63) segment show a somewhat different pattern. Bangladesh reduced its overlap with other countries except Italy and Turkey between 1990 and 2006.

China, on the contrary, exports increasingly similar products to Germany as those from high value-added producers such as Belgium, Italy and the Netherlands, and less similar ones, for example, to those of India. India, while it has reduced its overlap with China over the past 15 years, has increased it with Italy and the Netherlands. These findings suggest that there is a certain degree of horizontal differentiation in the German clothing market – lower-cost producers try to avoid competition with each other and, instead, move into product categories supplied by higher-cost exporters.

A glance at a more disaggregated (2-digit) level reveals that the overlap between Chinese and Indian exports has been limited in non-knitted or crocheted clothing (HS 62) and the other made articles (HS 63) categories. Even in knitted or crocheted clothing it has decreased. Analysis of 4-digit data further indicates that the decrease of overlap between Chinese and Indian exports to Germany is, to a large extent, attributable to the withdrawal of Indian producers in several categories (including women's ensembles, brassieres etc.).

*(c) A clear trend of horizontal differentiation among most suppliers in the United States*

Trends in the United States textile and clothing market are somewhat different from those in Germany. In particular, among textile exporters there is a clear horizontal differentiation. In 1991, China, India and Pakistan exported very similar products and the overlap between exports from Honduras, Hong Kong, China and Indonesia was also significant. Mexico and Indonesia also had some similarities, but exports by Bangladesh were very distinct. By 2006, the overlap between exports from Bangladesh and other countries had increased somewhat, but remained very low. Moreover, the export structures of all the other countries (except that of Mexico and Viet Nam, and Mexico and Canada) have become increasingly dissimilar.

In clothing, the general trend is a decreasing overlap of products but the export structure of China has come close to identical to those of other exporters such as Mexico and India. The same tendency is observed for Indonesia and Viet Nam as well as Hong Kong, China and Viet Nam. This can be explained by the increasing range of products that China and some other exporters deliver to the United States market. Another clear trend is the significant decrease of the overlap between Honduras and most other suppliers. In 1991, Honduras had a very similar export structure to Bangladesh, Canada, China, Hong Kong, China, Indonesia and Mexico; however, by 2006, it only had high overlap with Hong Kong, China. Honduras, being a small country with a limited variety of products it could produce with reasonable economies of scale as well as inadequate backward linkage facilities and heavy reliance on imported

fabrics, had not been able to increase the range of goods to the extent its competitors had done. It has even exited some product segments (e.g., men's cotton pyjamas) during the past 15 years (see box 1).

### **Box 1. Impact of ATC phase-out in Honduras**

By restricting the export growth of competitive clothing industries, MFA quotas opened the door to the global market for the apparel sector in Honduras. Given these preferential trading conditions, foreign investment from the United States and Asia helped to establish a thriving apparel industry in Honduras. The removal of MFA quotas and the associated erosion of preferential access triggered a decline, causing the Honduras' share of the United States market to decline from 3.09 per cent in 2004 to 2.57 per cent by 2006. Additionally, the country's impressive escalation from the United States' thirty-first largest supplier of apparel products in 1991 to the seventh largest supplier in 2002 stalled and then slipped to tenth largest supplier in 2006 (United Nations Comtrade Database, 2007). Despite the country's close geographic and business relations with United States apparel firms, MFA expiration threatens the adolescent textiles and clothing industry. Strengthened relations with international companies and increased investment in the textile industry and vertically integrated enterprises, however, could support Honduras' struggle with global competition.

The collective shift of the Caribbean Basin (namely, Central America and the Caribbean) into the apparel industry began in the 1950s. At the time, new government policies promoted offshore production, and United States apparel firms showed increased interest in the Caribbean's cheap labour supply and geographic proximity. In the 1960s and 1970s, export-oriented industrialization became more popular among Latin American governments, prompting the growth of many export-processing zones (EPZs). However, export-led growth did not take hold until 1984 when the Caribbean Basin Initiative improved political stability and economic cooperation with the United States. The Special Access Programme, more widely known as the 807 Rule, further contributed to the sector's development in 1986 by allowing low-income countries such as Honduras to export unlimited amounts of apparel to the United States if the apparel was made from United States-cut fabrics. Following the introduction of this rule, "production-sharing" became a common practice for Caribbean apparel industries.

Currently *maquiladoras* are the most common type of apparel firm in Honduras, and they have made a notable contribution to the decrease of the country's high unemployment. While this initially augmented the growth of apparel sectors, the raw material conditions discouraged development of many local textile sectors, thus hindering the possibility of developing full-package manufacturing plants. Despite the incentives structure that promoted imports of fabric, several firms have integrated backwards by acquiring fabric production plants, thus demanding an expansion of the Honduras textile industry (Bair and Peters, 2006). Textile integration has granted autonomy to many Honduran companies although the textile industry as a whole remains in an infant state. As of 2005, CAFTA had encouraged the development of the textile industry by authorizing the use of raw materials from any member country. These developments appear to have strengthened the roots of the Honduran apparel industry and fortified its response to MFA expiration. Yet, Asian competitors have operated vertically integrated enterprises for decades.

*(Continued)*

**Box 1.** (continued)

Foreign involvement in Honduran clothing production has solidified the country's role in the global apparel market. United States investment in Honduran export-processing plants has played an integral part in the preliminary transfer of industrial technology and the development of United States-Honduran trade relations since the 1990s. As illustrated in table 5, the United States has monopolised Honduran exports since granting preferential treatment in 1991, taking advantage of the short lead times generated by the geographic proximity of Honduras. A study by Ozden and Sharma (2006) found that 8.5 per cent to 9.5 per cent of the average export price increase in Honduras, Costa Rica and the Dominican Republic could be attributed to United States preferential access schemes. Asian investors have also shown a strong interest in Honduras, funding the majority of Honduran textile factories. As Chinese companies look to expand globally, the Honduran clothing industry offers an attractive investment because of CAFTA's duty-free access to the United States market.

The stagnation of most Caribbean Basin apparel sectors since 2000 mirrors the progressive expiration of MFA quotas. Honduras' growth rates have slowed as well, relative to the exponential growth rates achieved in the 1990s, but the industry has concurrently adapted and advanced in recent years to prepare for increased levels of global competition. Honduras' progression from production sharing to full-package manufacturing and, especially, to vertically integrated production is central to this development. A vertically integrated industry comprising local production of textiles offers Honduras a strong competitive advantage over regional competitors who have not evolved from United States-dependent maquiladora production, a vulnerable form of enterprise plagued by low barriers to exit.

While Honduras has achieved record growth rates and captured market share from other Caribbean Basin competitors such as Jamaica and Haiti, the concentration of quota-sensitive apparel products in the last stage of MFA expiration posed a significant threat. Knitted T-shirts, knitted jerseys, and sweaters comprise the majority of Honduras' export product range (Bair and Peters, 2006). As these products previously were protected by high quota constraints, Honduras now faces direct competition from China. Product differentiation would help to protect Honduras in the global market, but the industry has made limited efforts in that direction.

**Table 5. Top 10 destinations of Honduran apparel exports**

(Unit: Percentage)

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
United States	..	98.9	97.2	97.1	96.8	97.6	97.6	97.8	97.4	97.7	97.2	96.8	96.0	95.9	93.8	93.4	95.1
Canada	15.1	0.2	0.3	0.4	0.5	0.7	0.9	0.9	1.2	1.2	0.9	1.3	1.8	1.4	1.8	1.8	2.2
Costa Rica	..	..	..	..	0.6	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.2	0.2	0.3	1.0	1.0
Mexico	36.5	0.3	0.1	0.0	0.2	0.0	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.4	0.6	0.7
Belgium	..	..	..	..	..	0.0	0.0	0.0	0.0	0.1	0.7	0.5	0.5	0.5	0.6	0.4	0.6
Japan	1.0	0.0	0.0	0.1	0.1	0.1	0.2	0.2	0.3	0.3	0.3	0.3	0.4	0.3	0.3	0.3	..
United Kingdom	..	..	..	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.3	0.2	..
France	..	..	..	..	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2
Guatemala	..	..	..	0.4	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.2	0.4	0.3	0.2	..
Germany	37.1	0.5	0.6	0.2	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.2
Total top 10	0.0	0.2	0.4	0.5	0.7	1.0	1.3	1.8	2.0	2.3	2.5	2.6	2.7	2.7	2.9	2.9	2.7

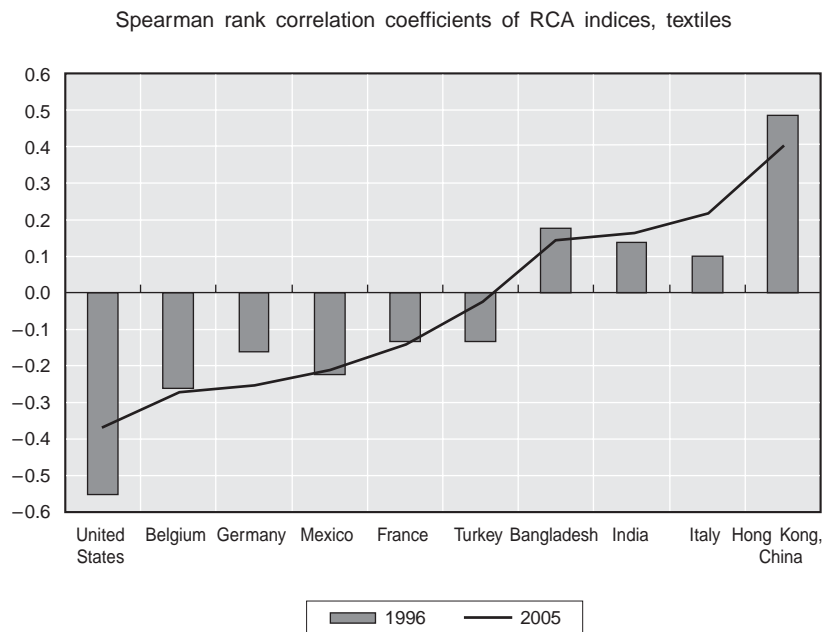
Source: United Nations Comtrade Database, 2007.



(d) *In world markets, Chinese exports have become less similar to those of Bangladesh or India*

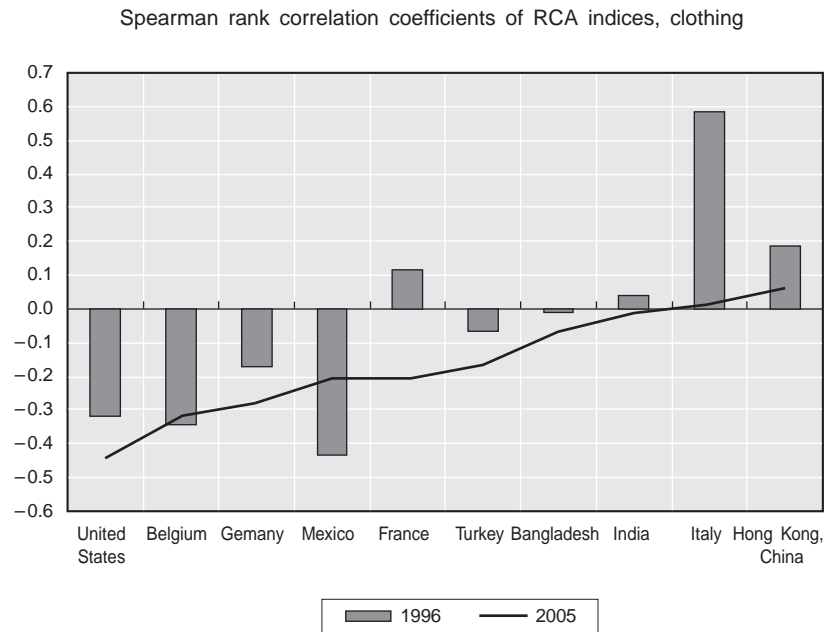
To complement the above analyses of similarities of export structures, the Spearman correlation coefficients of revealed comparative advantage (RCA) indices of the top 10 exporters and their most dynamic competitor, China, are calculated. The correlation index takes values between +1 and -1, with positive values showing that a country specializes in similar products as China and with negative values showing dissimilarity of export structures. As figure VII indicates, China's textile export structure has become less dissimilar to that of the United States as a result of China's move into higher value-added textiles segments. At the same time, China is exporting increasingly similar products to those of India and Italy and less similar products to those of Bangladesh and Hong Kong, China. These findings support the catching up hypothesis: China is moving into more capital- and technology-intensive product segments and is improving the quality of export goods. The Spearman correlation coefficients of RCAs in the clothing market reveal some different trends (figure VIII). Compared with 1995, China exported more products in 2005 that were dissimilar to those exported by Italy, Mexico, Turkey and the United States, and less dissimilar ones compared with France. The similarity with Bangladesh and India, on the other hand, decreased during the same period. A possible reason for this finding is that China has basically diversified its export structure, moving into all categories and gaining export shares more rapidly than its competitors. This could have happened by the acquisition of foreign firms that produce a wider array of products.

**Figure VII. Textile trade specialization of China vis-à-vis its top 10 competitors**



Source: OECD calculation based on United Nations Comtrade Database, 2007.

**Figure VIII. Clothing trade specialization of China vis-à-vis its top 10 competitors**



Source: OECD calculation based on United Nations Comtrade Database, 2007.

*(e) China's revealed comparative advantage in labour-intensive products is decreasing*

The revealed comparative advantage reflects a country's relative strength in exporting different types of commodities. The RCA index – which measures a country's export share for a commodity and compares it with the world export share of that commodity – is calculated at the 4-digit level of textiles and clothing categories for 1996-2005. In design-intensive goods where quality is easily differentiable, such as neckties, Italy has the highest revealed comparative advantage among the countries examined. Moreover, its RCA increased during the past 10 years. Bangladesh, for example, appears strong in labour-intensive manufactures such as men's shirts and T-shirts, with the highest RCA values in the group. China's revealed comparative advantage shows a declining trend in labour-intensive products such as men's shirts and T-shirts, and an increasing trend in neckties. This is additional support for the catching up view. This, however, does not mean that China may not be competitive in these segments in the world market. The RCA index simply reveals the performance of a commodity relative to other commodities; thus, it reflects more on the pattern of specialization rather than competitiveness per se. In other words, Chinese textiles and garments may be competitive in the world market, but other industries may be even more competitive. India's RCA has also increased for neckties, although it is still very low. India also shows an increasing RCA in T-shirts, but its RCA in men's shirts has decreased.

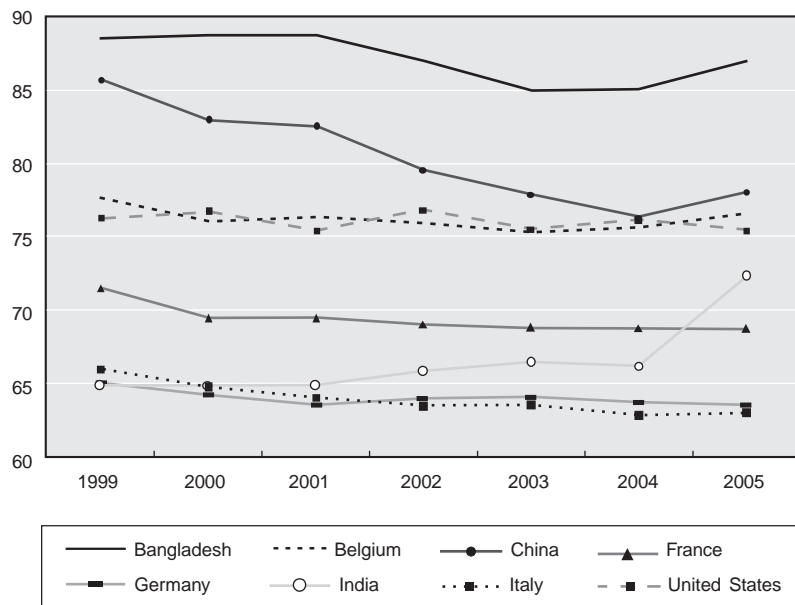
### 3. Reorientation of markets

During the quota system under ATC, the major way to expand export markets by the most productive producers was to enter into new markets or increase sales in markets that did not impose quotas. Before 2005, this led to a diversification trend of export markets for rapidly-growing producers such as China. With the phase-out of quotas, these producers started to gain market shares in Canada, Europe and the United States, and a larger share of their exports was directed to these markets. As figure IX indicates, countries previously restricted by quotas (such as Bangladesh, China and India) have reversed their trend of market diversification to market concentration in 2005. This reversal was sharper for Bangladesh and India, whose top 10 export markets had been countries with quota restrictions. China, on the other hand, had important markets such as Australia, Hong Kong, China, Japan and the Republic of Korea that did not impose quotas among its top 10 markets; therefore, the reversal towards market concentration is not as drastic as India's. On the contrary, countries not affected by quotas, such as the OECD members, did not show any significant change in their export market structure in 2005.

The phasing out of quotas has also brought about temporary market share gains for less efficient producers. As theory suggests, quotas add extra margins to the export price and limit the export volumes to quota-imposing countries, while there is excess

**Figure IX. Producers previously restricted by quotas consolidate their export markets**

Percentage share of top 10 export markets in total textile and garment exports by selected major producers



Source: OECD calculation based on United Nations Comtrade Database, 2007.

capacity in the rest of the world (assuming that at least some of the producers expand production at a faster pace than market growth in the markets affected by quotas, as has been the case), bringing down prices. Lower prices create extra demand in those countries. With the removal of quotas, the logic is supposed to work the other way around – exports to the previously quota-imposing countries should surge due to redirection from non-quota imposing countries. The example of China clearly illustrates this fact; in 2005, there was a sharp increase in the share of China's exports to Canada, Europe and the United States while some other major markets, such as Japan and the Republic of Korea, had a smaller share of exports. It should be noted, however, that in the case of Japan this was also due to the fact that Chinese exports grew much faster than Japanese demand.

### **Box 2. Uncertain times for Malagasy apparel**

Madagascar offers a prime example of a low-income country drawn into the apparel industry by MFA quota protection and preferential treatment schemes. By limiting competition from other exporting countries and redirecting foreign investment to Madagascar, these programmes have facilitated the global establishment of this emerging industry. Madagascar is a particularly interesting case because of its dramatic growth period from 1990 to 2001, during which its clothing sector was one of the fastest growing industries in sub-Saharan Africa. In 2002, the industry endured a severe downturn due to a political crisis, and then rebounded to pre-crisis export levels by 2004 due to the depreciation of the Malagasy currency (a temporary defence against the pending MFA expiration). To surmount the long-term implications of MFA expiration and compensate for the country's reputation for political instability, Madagascar should increase the industry's competitiveness by (a) boosting investment and vertically integrating the textile industry, (b) promoting synergies within the export-processing zones and smaller companies, and (c) specializing in niche products that circumvent direct competition with China.

The swift development of Madagascar's clothing industry in the 1990s can be attributed to three main factors. First, Malagasy exports were promoted as an alternative to exporting countries restricted by the Multi-Fibre Arrangement. Second, duty-free access for clothing imports to the European market was granted by the European Union Cotonou Agreement programme and reaffirmed in 2001 by the "Everything but Arms" (EBA) initiative. Last, Madagascar profited from the Africa Growth and Opportunity Act (AGOA) programme, which granted duty-free access to the United States market for clothing products from sub-Saharan Africa, with a provision for the use of local fabric until September 2007. The impact of AGOA on Madagascar's clothing industry is evident from the increase in foreign investment after the scheme was announced in 1997 and the 114 per cent growth in Malagasy apparel exports from 1997 to 2001 (Tait, 2002).

Stimulated by these programmes, Madagascar has established itself in the global clothing market, primarily in the role of an apparel assembler. The industry grew from a handful of factories in the 1980s to approximately 115 factories in 2005 (Sedowski, 2006). Meanwhile, the country's textile industry remains underdeveloped due to insufficient cotton production and lack of investment in production technologies by Madagascar. The country's three textile mills cannot meet demand, so most

*(Continued)*

**Box 2.** *(continued)*

production units are imported from China, a low-cost alternative, and Mauritius, a qualifying LDC AGOA supplier.

The Multi-Fibre Agreement first facilitated the establishment of Madagascar's apparel industry by promoting triangular manufacturing arrangements. In response to MFA quota restrictions, middle-income countries began to subcontract all or part of a project to less developed countries, thus developing fledgling industries such as Madagascar's apparel sector. As Malagasy apparel firms became more established, they capitalized on these investments by forming direct relationships with buyers, particularly from Europe.

The growth of Madagascar's clothing industry is also largely attributed to foreign investment from Mauritius, which was attracted by Madagascar's cheap labour supply. Concurrently, Madagascar's thriving French expatriate population facilitated an influx of foreign investment into the expanding industry. Asian investors (chiefly China, Malaysia, Pakistan, Singapore and Hong Kong, China), quickly followed suit in the 1990s. In addition, since the launch of AGOA, several Middle Eastern companies (particularly from Saudi Arabia and the United Arab Emirates) have also invested in the Madagascar apparel sector (Tait, 2002).

Among the various national development initiatives, the introduction of EPZs in 1990 had the greatest impact on the growth of the clothing and textile industry. Taking advantage of MFA quota protection, duty-free inputs for 95 per cent of exports attracted many new market entrants and the development of three major production centres. These government-subsidized zones aimed to increase foreign investment through duty exemptions, tax deferral and drawback schemes, and a 10-per cent tax on dividends (Tait, 2002). The EPZs of Madagascar and Mauritius have been particularly successful in that they offer EPZ benefits to firms that are located anywhere in the country. Interestingly, the EPZs still suffered in the 2002 political crisis because of the industry's low barriers to exit, but they were also the best equipped to bounce back (Cling and others, 2005).

Despite the apparel industry's quick recovery after the political crisis, the ability of the country to withstand the expiration of preferential treatment schemes is unclear. Madagascar's physical infrastructure severely limits the development of the textile and clothing industry. This involves rent, electricity and administrative costs, and Madagascar's overhead charges have become a serious consideration for potential investors. The country has an inefficient transportation system; the road system is deficient, port facilities are in poor condition, and export lead times are long because the country is not on a direct shipping route (exports must be shipped via Durban in South Africa). In addition, the country's deficient training facilities are limiting the development of skilled labour and contributing to the industry's low productivity rates.

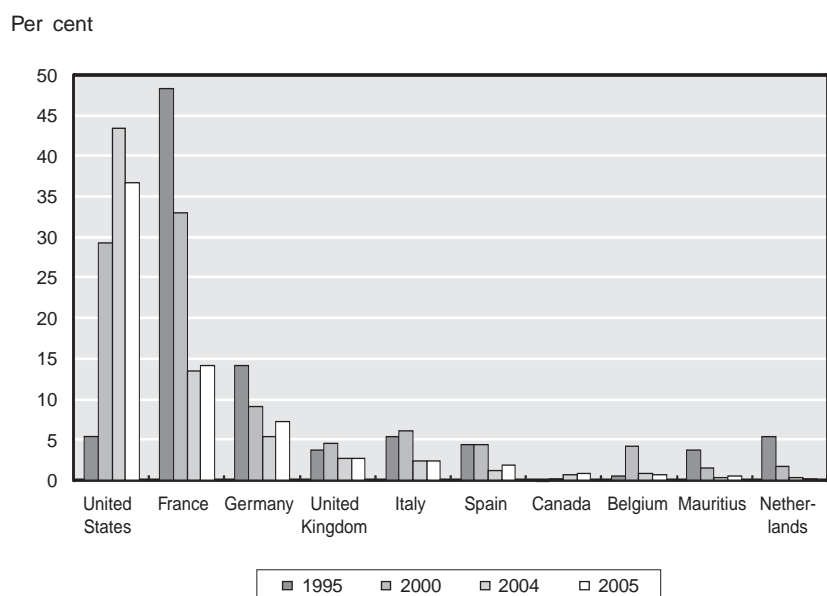
Despite infrastructural setbacks, however, exports to the European Union market have grown since 2004. Interestingly, exports to the United States have concurrently fallen (figure X). Madagascar's share of the United States market fell from 0.38 per cent in 2004 to 0.25 per cent in 2006, primarily because of a decrease

*(Continued)*

**Box 2.** (continued)

in knitted or crocheted apparel and accessory exports. Meanwhile, the share in the German market, the third top destination for Malagasy 2005 exports, increased from 0.09 per cent in 2003 to 0.16 per cent in 2006, due to a gain in market share of the same product category. The slight decrease in the German unit price of these products has not discouraged growth, while a dramatic drop in price from US\$ 16.90 in 2004 to US\$ 3.90 in 2006 has visibly impaired exports of this category to the United States. – United Nations Comtrade Database, 2007.

**Figure X. Top 10 destinations for exports by Madagascar in 2005**



Source: United Nations Comtrade Database, 2007.

Similar to the case of Honduras (see box 1), vertical integration may offer hope for the future of the Malagasy clothing industry. Madagascar's clothing factories could integrate with the country's few textile production facilities and handful of accessory manufacturers. This would require expansion of the domestic cotton industry, a factor that was expected to become more pertinent after the AGOA fabric provision phase-out in September 2007. HASYMA, the national cotton production organization that was privatized in 2004, has announced plans to boost future cotton production. Developing domestic fabric production would make Madagascar more competitive in the global market because the country's current fabric orders from India and China delay production by three to five weeks. Significant technological and infrastructural advancements would be necessary, however, to reduce Madagascar's

(Continued)

**Box 2. (continued)**

current lead-time on orders (six to seven weeks) to an efficiency level competitive with Indian and Chinese suppliers.

The apparel industry's chance of long-term survival would also improve by increasing synergies between Madagascar's many small, adolescent companies. USAID has initiated the JUMPSTART programme to promote the development of small and mid-sized firms. Meanwhile, the European Union has developed a clustering organization called Text'ile Mada, to facilitate the pooling of knowledge and product specializations. The cluster appears to have increased the apparel sector's competitiveness in the global market by decreasing costs and by uniting companies in offering a broader range of services to overseas clients and competing with China for large orders.

Product specialization would also increase Madagascar's competitiveness in the global market. Wadding, felt, non-wovens, yarns, twine and cordage, which have been exported to Germany since 1994, offer a potential niche market for Madagascar. These products comprised 0.12 per cent of the German market share and 0.02 per cent of the United States market share in 2006. While nearly all categories of apparel exports are growing, this product category remains a minor export category for China. Additionally, Madagascar can offer a price advantage, exporting for US\$ 1.70 to the German market versus China's average unit price of US\$ 4.40 (United Nations Comtrade Database, 2007). Further investment in the development and promotion of these products in the United States and European markets would allow Madagascar to sidestep Chinese competition.

#### **4. Relocation of production facilities**

The quota system under ATC was an important determinant of the location of foreign direct investment (FDI) in textiles and garments. Multinationals aiming at re-exporting to the host country had been constrained in increasing their investment in countries where quotas were binding, and they had been forced to expand in countries that may have had lower production efficiency. Similarly, exporter countries with high productivity but full utilization of quotas established production facilities in countries with lower productivity but under-utilized quotas or in countries not subject to quotas. This resulted in dispersed production of textiles and clothing around the globe, implying inefficiencies.

The removal of the quota system, not surprisingly, accelerated the efficiency-enhancing consolidation wave that had started earlier in the industry. This consolidation/relocation wave, together with declining trade barriers, has also been driven by decreasing services costs, including transportation, and has allowed for further slicing of the value-added chain (Jones and Kierzkowski, 1990). Production plants both from low-cost, low-productivity and high-cost, high-productivity countries are relocating to the most productive, relatively low-cost countries.

The move to a more efficient global production system, however, involves adjustment costs that may be sizeable in the short term. These adjustment costs may incur in the form of output and employment losses related to relocation overseas. Using

time series industry data, Molnar and others (2007) estimated the labour market impacts in OECD countries of overseas relocation and found that there was heterogeneity across industries. Robust to the way of specification, the findings show that employment in the services industries is positively affected by moving overseas, while in the manufacturing sectors the effect depends on whether the sector has strong commercial ties (in terms of the share of imports and outward FDI) with non-OECD countries. In the industries with the strongest ties with non-OECD countries, such as textiles and garments, food and beverages, electronics and transport equipment, there is a strong negative effect of outward investment on domestic employment, while in other manufacturing industries such as pulp and paper, chemicals, metals and machinery, no significant impact is found.

Furthermore, according to the study, in sectors with strong ties to non-OECD countries, increasing relocation overseas raises long-term wage elasticity as well as the speed of adjustment of domestic employment. In the services sectors, on the contrary, overseas investment reduces the speed of adjustment of domestic employment. The above findings suggest that in certain manufacturing industries, particularly textiles and garments, overseas and domestic employment may be substitutable to a certain extent, while in services they are somewhat complementary. Analysis of the relationship between overseas and domestic employment in the G3 countries shows that they are somewhat complementary in the United States and substitutes in Japan, while for Germany there are no significant results.

### **C. Conclusion**

This chapter provides a preliminary insight into the economic impacts of the ATC phase-out in 2005 and the strategies adopted by exporters in its anticipation. It is clear that developments in the first few months immediately following the last stage of ATC were inspired by the back-loading of quota removal. The increases of imports to the European Union and the United States of several hundred or even several thousand per cent on many textile and clothing items prompted the introduction of temporary safeguards that intermittently overturned or slowed down the adjustment process. The fact that some of the exporters who experienced declining exports to the European Union following the abolishment of quotas in the first few months of 2005 were gaining their market shares back in the 2006, and the fact that this did not happen in the United States market where the trends from 2005 continued, suggests that temporary measures introduced by the European Union might have been more binding even though it is also clear that impacts varied by product category.

Temporary quotas have curbed the surge in imports from China, but each year China's competitors in these markets are put under increasing pressure. As far as the most current data (January-March 2007) are concerned, in both the European Union and the United States markets an increase in the imports of textiles and apparel from China are observed from the same period in 2006, which suggests acceleration with regard to the rate of growth for the whole of 2006.

The anticipation of the new post-MFA environment based on market principles as well as the liberalization already effectuated within ATC prior to 2005, prompted an adoption of new survival strategies. A promising strategy adopted by mainly high-cost, high-quality producers was vertical specialization. Whether this strategy can be adopted largely depends on the type of the product; where consumers can differentiate by product quality (e.g., silk neckties), it has been seen as a successful choice, but where



it is hard for consumers to differentiate across different qualities, price competition arose instead. For this latter type of product (e.g., men's cotton shirts and T-shirts), China emerged as the major supplier, forcing other exporters to lose market shares or exit the market.

As vertical specialization appears to be a viable option mainly for high-quality producers, some exporters in the lowest segments have adopted horizontal specialization to maintain or gain market shares. This appears to be the strategy in particular for smaller producers who cannot possibly compete in a wide range of products due to limited economies of scale. To exploit economies of scale in production and transportation, for these producers it is essential to identify their niche products with comparative advantage and focus on fewer destinations. Relocation of production facilities now targets lower-cost, high-productivity large-size countries. Multinational enterprises have long since started this process and had been limited in such expansion by the quota system. Relocation from low-income, low-productivity countries is not yet seen as a major trend; however, with the removal of quota restrictions, a certain degree of consolidation is foreseen in low-cost, high-productivity countries.

The consequences of the phase-out differ across exporters, and their preparedness is playing a role in how they manage to cope with competitive challenges in more open markets. Exporters with low costs and high productivity such as China, India and, to a lesser extent, Pakistan and Viet Nam have succeeded in benefiting from enlarged markets, while the phase-out has brought about challenges for OECD and small-country producers. A major challenge in OECD countries is how to cope with decreasing labour demand in the textile and clothing industries as a result of relocation, while in low-income countries the challenge is how to specialize in products and markets in order to stay afloat. This latter group of countries have been given further time for adjustment, which should be better exploited to prepare for fiercer competition in the global textile and clothing markets, especially by learning from the experience prior to the phase-out.

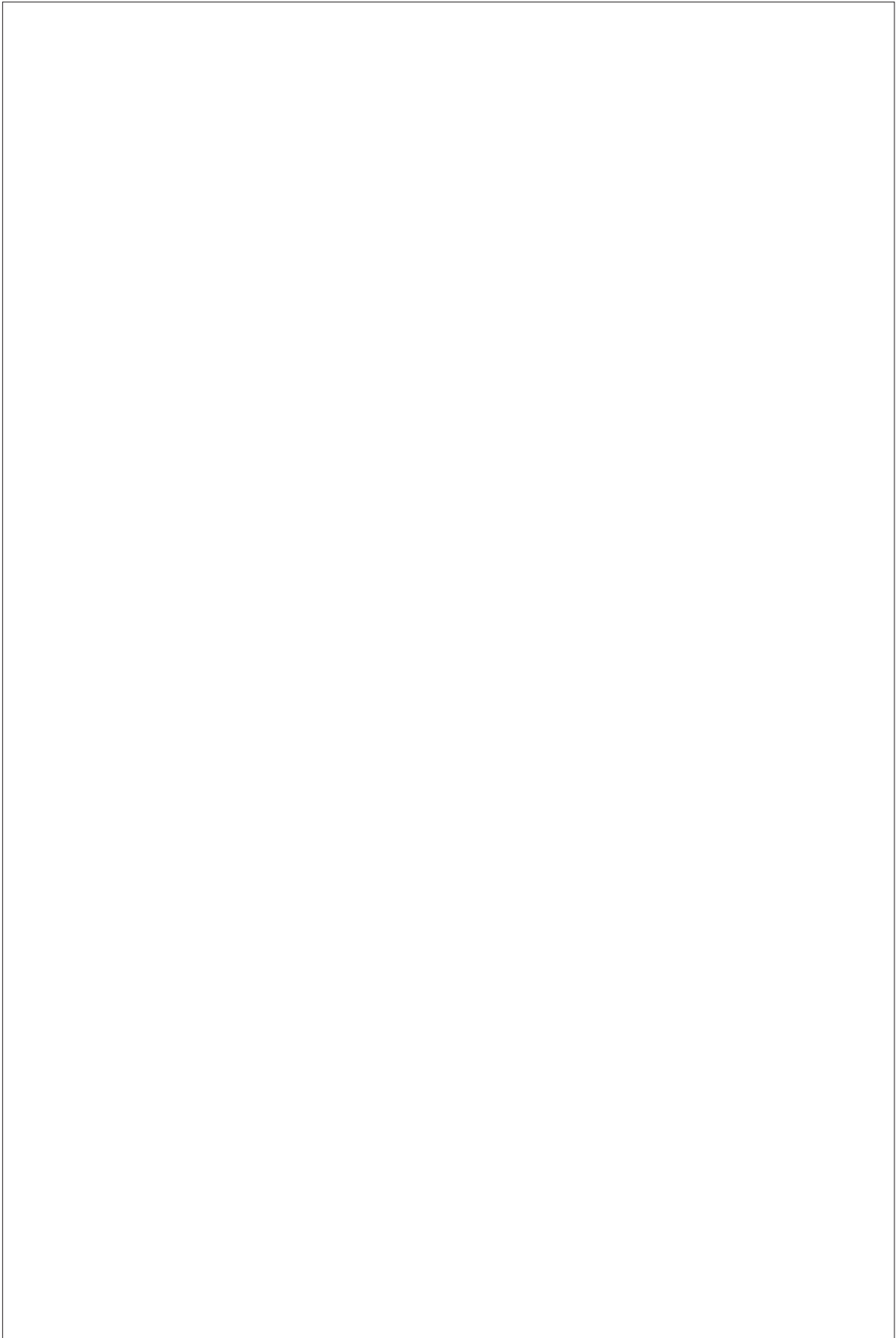
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### **III. STATUS OF PROTECTION FACING EXPORTERS OF TEXTILES AND CLOTHING FROM ASIA AND THE PACIFIC IN THE NORTH AND SOUTH MARKETS**

*By William E. James*

#### **Introduction**

Textiles and clothing were identified with export-oriented, manufacturing-led growth throughout East and South-East Asia in the latter half of the previous century. South Asian countries have initiated a similar process of growth in these critical sectors, by far the largest industrial branch within the South Asian region in terms of GDP, exports and employment. The emergence of China as a major textile and clothing producer and supplier to world markets has been facilitated by China's accession in late 2001 to WTO. All the countries in the region have been strongly affected by the achievement of global trade liberalization through ATC, which gradually reintegrated textiles and clothing into the multilateral trade regime during 1995-2004. A process of consolidation of the industry has unfolded with the abolition of the global system of quota restrictions on trade in textiles and clothing. Small and marginal clothing suppliers have exited the market, and market shares of competitive Asian suppliers in the markets of the OECD countries have consequently grown. Textiles production is also being consolidated, with only the largest suppliers likely to be left standing at the end of the process.

Predictions that Asian suppliers would collapse in countries such as Bangladesh, Cambodia, Indonesia, the Philippines, Sri Lanka, among others, have turned out to be unduly pessimistic. In fact, the performance of most developing Asian suppliers in world markets has been quite good (Asian Development Bank, 2006). Furthermore, even though China has attained a predominant position in world production and exports, textiles and clothing are occupying a shrinking proportion of China's national export basket as more sophisticated manufactures – especially in machinery and chemicals, and allied industries – become more important (Asian Development Bank, 2007).

A threat to the future development of the textiles and clothing industries within developing Asia and Pacific economies, however, exists in the increasing proliferation of preferential trade agreements involving major industrial markets and developing countries. It is estimated that more than 300 bilateral free trade agreements (FTAs) are likely to be in force by the end of 2008, many of which impose restrictive rules of origin and high margins of preference in the textiles and clothing industries with a view to protecting the domestic producers within each bilateral trade agreement (Asian Development Bank, 2006). Moreover, a recent study of FTAs entered into by Asia-Pacific countries noted that the agreements between an Asian partner and non-regional partners tended to provide more favourable market access in textiles and clothing than did agreements involving two Asian partners (James, 2006). For example, the Republic of Korea-Chile FTA offers immediate duty-free access to the Korean market for Chilean textile and clothing exports, but the Republic of Korea-Singapore FTA only phases out tariffs on textiles and clothing over a 10-year period. In addition, rules of origin tend to be more restrictive for intra-Asian trade partners than for non-regional partners. Hence, Asian bilateral agreements, such as those in Europe and the western hemisphere are creating a more complex and difficult trade environment for Asian suppliers of textiles and clothing.

The impasse in global trade negotiations in the Doha Round and the likely demise of the Trade Promotion Authority of the Bush administration in July 2007 mean that initiatives to further liberalize multilateral trade in these sectors are unlikely to take place any time soon. To some extent, unilateral initiatives taken by select OECD countries to provide duty-free and quota-free access to designated LDCs or to other designated low-income countries may offset the failure of Doha. However, these initiatives in themselves are unlikely to lead to greater integration within developing Asia, as they are usually capped at relatively small volumes of trade and do not provide any certainty for long-term investments.<sup>1</sup>

The Association of South-East Asian Nations (ASEAN) has identified textiles and apparel as one of the dozen priority sectors for early liberalization in its efforts to create an ASEAN Economic Community by 2015. ASEAN earlier commissioned a study of non-tariff measures (NTMs) inhibiting the integration of textiles and clothing, which was completed early in 2007.<sup>2</sup> The investigation found that there was a significant incidence of NTMs and that a number of them were highly restrictive of the development of intra-ASEAN trade in intermediate textile products and of investment in textile and clothing industries. Similarly, a recent study prepared for the Asian Development Bank (ADB) on the textile and clothing sectors in the member countries of the South Asian Association for Regional Co-operation (SAARC) finds substantial and highly restrictive internal barriers to trade in textile intermediate products in the South Asian region.<sup>3</sup>

It is logical that the developing countries and customs territories of the Asian and Pacific region should consider textiles and clothing as sectors that are likely to be on the leading edge of trade and investment cooperation in the region.<sup>4</sup> In South Asia, Bangladesh, India, Nepal, Pakistan and Sri Lanka all have a revealed comparative advantage in both textiles and apparel (James, 2007). Afghanistan and Bhutan have significant handicraft production, although mainly for the tourist trade but not yet for commercial exports. Afghanistan also has capacity in the production and exporting of carpets. It remains to be seen whether either of these SAARC members will become suppliers of clothing to world markets.

In ASEAN, Cambodia, Indonesia, the Lao People's Democratic Republic, the Philippines, Thailand and Viet Nam all have a revealed comparative advantage in clothing; in addition, Indonesia, Thailand and Viet Nam have a revealed comparative advantage in textiles (James and others, 2007). The other member countries also have significant capacities in textile and clothing production and trade, as suppliers (Malaysia

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<sup>1</sup> For a discussion of these unilateral preference programmes and their impact on Asian suppliers, see James, 2006.

<sup>2</sup> James and others, 2007. This study is one of three on measures inhibiting the integration of priority sectors: textiles and apparel, electronics and logistics.

<sup>3</sup> James, 2007. This report is a precursor to a larger study of measures restricting trade integration and investment in SAARC textiles and clothing industries.

<sup>4</sup> In both the European Union and North America, regional integration and cooperation began with the integration of an industrial sector at an early stage of the integration process. The Steel and Coal Community of 1952, comprising the six original members of the European Community, was the predecessor to the Treaty of Rome of 1957. In North America, the Auto Pact of 1965 was the predecessor to the Canada-United States Free Trade Agreement of 1989 and the North American Free Trade Agreement (NAFTA) of 1993 (Trebilcock and Howse, 2005).

and Brunei Darussalam) or potential suppliers (Myanmar), or as hubs for intraregional trade as well as between the region and the world (Singapore). China also has a very strong revealed comparative advantage in both textiles and clothing (James, 2007).

Despite the strong competitiveness of South Asian suppliers in world markets, trade integration within SAARC is barely developed. Specialized clothing exporters in Bangladesh and Sri Lanka make hardly any use of regional supplies of fabric from India or Pakistan. Trade integration is also very limited within ASEAN as extraregional fabrics are largely used by clothing exporters in Cambodia, Indonesia, the Philippines and Viet Nam, despite strong textile capacities in Indonesia, Malaysia, Thailand and, increasingly, Viet Nam. A recent study conducted for ADB shows that intra-industry trade within labour-intensive industries, including textiles and clothing, declined during 1995-2004, in contrast with rising intra-industry trade in technology-intensive and human capital-intensive industries (Asian Development Bank, 2007).<sup>5</sup> The external trade environment in textiles and clothing has also been altered by the agreements between China and the European Union, and China and the United States to implement temporary quota restrictions on selected clothing and textile products. The new quota restrictions on shipments from China to the United States market are examined in section A below. In section B, market access conditions as well as external barriers to textile and clothing exports from Asia-Pacific suppliers in major markets are considered. Section C reviews internal barriers to increasing intraregional trade in the Asia-Pacific region. Section D looks at policy implications and makes recommendations.

#### **A. Performance of Asian and Pacific suppliers in major markets in the post-quota era: Case study of the United States market**

The member countries of ASEAN and SAARC comprise a major portion of world population, and a growing share of world production and trade. These countries were expected to be among the major beneficiaries of liberalization of world trade in textiles and clothing with the phasing out of the quota system under ATC. This expectation appears to be borne out in the case of the United States market – the largest import market for clothing in the world.<sup>6</sup>

The performance of ASEAN in the post-quota era in the United States market in terms of value (table 1) and volume (table 2) can be compared with overall world shipments (tables 5 and 6). ASEAN clearly outperformed the growth of world shipments in apparel during the first two years of the post-quota era in value, and although the growth in volume of shipments was below the world average in 2005, volume growth in 2006 was a multiple of world growth (16 per cent vs. 2.4 per cent). For the ASEAN member States, apparel is dominant in the value of shipments, up from 91.8 per cent in 2004 to more than 94 per cent in 2006. Textile intermediate products (yarn and fabric) accounted for just 2.4 per cent of the value of shipments of all textile and apparel items to the United States in 2006. However, textile shipments fell sharply in 2005 compared

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<sup>5</sup> The Grubel-Lloyd index of intra-industry trade is calculated in the case of SITC 3-digit product groups for 11 East and South-East Asian economies: China; Hong Kong, China; Taiwan Province of China; Japan; the Republic of Korea; Indonesia; Malaysia; the Philippines; Singapore; Thailand; and Viet Nam.

<sup>6</sup> United States apparel imports in 2006 reached US\$ 71.6 billion (Office of Textiles and Apparel, January 2007) compared with US\$ 59.9 billion for the EU25 (EmergingTextiles.com, 2007a).

with 2004, causing total ASEAN shipments in 2005 to grow more slowly than world total shipments in value in the first year of the post-quota era. In 2006, textiles showed modest growth in value and overall growth in value and volume of shipments from ASEAN outperformed world average growth in the United States import market.

Cotton apparel accounted for 63 per cent of total apparel shipments to the United States in 2006, thus showing faster growth than any other product group during 2004-2006 (in both value and volume). A major development in 2006, compared with 2005, was the strong performance of synthetic fibre apparel. The positive trend in shipments of synthetic fibre apparel appears to be carrying over into 2007 and partially makes up for a stagnation in cotton apparel shipments in the first month of 2007.

In the SAARC member countries (Bangladesh, India, Nepal, Pakistan and Sri Lanka) that supply textiles and apparel to the United States, performance in terms of growth in the post-quota era has been clearly superior to world average growth in value (table 3) and volume (table 4). Apparel shipments to the United States from SAARC are also predominantly cotton apparel, accounting for more than 79 per cent of total apparel shipments in 2006. Indeed, with the elimination of quotas, shipments of non-cotton apparel (with the exception of silk apparel in 2006) have shrunk as SAARC suppliers specialize in cotton fabric apparel. In marked contrast to ASEAN, SAARC suppliers of textiles performed quite well in the United States market, with shipments growing by 15 per cent in 2005 and 11 per cent in 2006. Moreover, textiles account for between 25-30 per cent of SAARC total shipments to the United States, a much higher share than for the ASEAN countries. This helps to highlight a possible complementary relationship between SAARC and ASEAN that might provide a basis for increased integration of the two subregions. Fabric shipments from SAARC are dominated by those of India and Pakistan, and are much larger than ASEAN fabric shipments to the United States market.

At present, fabric imports in ASEAN are mainly from East Asian suppliers (China, Hong Kong, China, Japan, the Republic of Korea and Taiwan Province of China). However, scope may exist for increased trade in intermediate products from South Asian suppliers if shipments are timely, of good quality and competitive in cost. Barriers that obstruct the development of intraregional trade are discussed in section C below.

China's performance in the United States market in terms of value and volume (tables 7 and 8) was very strong in 2005, with extremely rapid growth in apparel shipments of almost 70 per cent in value and 98 per cent in volume. For textiles, growth in value (29 per cent) exceeded growth in volume (25 per cent) in 2005. Overall shipments were up in 2005 by 54 per cent in value and 44 per cent in volume. The imposition of restrictions on selected clothing and textile items began in the second half of 2005; this may have cooled off the rate of increase in the latter half of the year, as in the first six months of 2005 shipments of apparel grew by over 140 per cent in value (Asian Development Bank, 2006). A comprehensive agreement to restrict shipments of clothing and textile products in most of the fastest growth categories was reached between the governments of the United States and China in November of 2005, and restrictions were implemented thereafter, strongly affecting shipments in 2006. The restrictions are implemented through agreed limits on the volume of shipments, and it can be seen that apparel shipments in all of 2006 slowed to just over 10 per cent (table 8) while growth of textile shipments was limited to just over 11 per cent.



However, unit prices are not regulated by the agreement and these rose somewhat (unit values of China's clothing items that were restricted increased in the United States by an estimated 21.3 per cent in 2006). Despite that fact, unit values of China's products remained a good deal cheaper than those from other ASEAN suppliers. For example, unit values of Indonesian shipments to the United States comprising items for which China faced quota restrictions in 2006 remained nearly 37 per cent higher than Chinese unit values.<sup>7</sup>

In 2007, China's shipments have gained momentum as the system for allocating quotas apparently has become more efficient – the volume of apparel shipments increased by nearly 68 per cent in January of 2007 compared with January 2006.<sup>8</sup> However, shipments of textiles grew by less than 5 per cent in January 2007 compared with January 2006 (table 8). Unit values of shipments by China continue to increase, with an expected growth rate in both clothing and textile items of about 10 per cent in 2007 compared with 2006. The likelihood is that China will be able to increase shipments in terms of volume up to the allowable limits in 2007; however, actual growth in value will be determined by unit values, which may be expected to rise somewhat.

Does the improvement in China's performance in 2007 mean that other competitive Asian suppliers will be displaced in the United States market? In looking at this issue, market shares were calculated for value and volume for ASEAN (tables 9 and 10) and SAARC suppliers (tables 11 and 12). These tables show that ASEAN has steadily improved its share in the United States market for apparel during 2004-2007, with the value share topping 20 per cent in the first month of 2007 (up from 17 per cent in 2004). The tables also show that market shares of ASEAN in items on which China faces restrictions are rising even faster than for all apparel shipments, from just under 18 per cent in 2005 to almost 22 per cent in January 2007.

Value shares in textiles have continued to fall for ASEAN. Volume shares have increased for ASEAN apparel although cotton apparel shows a slight drop in 2007, which is more than compensated for by an increase in the share of synthetic fabric apparel. The market share, in terms of volume, of textile shipments, however, continued to fall and was under 5 per cent in the first month of 2007 (table 10). The overall volume share is stable for all shipments compared with all United States imports at around 11 per cent for ASEAN. This indicates that unit prices of ASEAN shipments are rising and that ASEAN suppliers are attempting to move up in terms of quality of products rather than compete in low-end products in the United States market.

SAARC members have also steadily increased their market share of apparel in the United States market between 2004 and 2007. Cotton apparel from SAARC has increased its market share from 13 per cent in 2004 to more than 20 per cent in 2007. This pattern is different from ASEAN where the share of synthetic fabric apparel is rising sharply. In contrast to ASEAN, SAARC is also increasing its share of the United States textile market with an 18.2 per cent share of all textile items (value), up from 16 per cent in 2004 (table 11). SAARC suppliers have also taken advantage of limits on China's shipments in restricted items with a jump in market share from 10 per cent in 2004 to almost 15 per cent in the first month of 2007. The volume share of SAARC

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<sup>7</sup> These estimates are available upon request from the author.

<sup>8</sup> EmergingTextiles.com (2007b) reports quota fill rates as much higher in 2007 than in 2006 for China's shipments in restricted items.

products has risen sharply since restrictions were imposed, but the trend in share is upward over the entire period of 2004-2007 (table 12).

The market share data indicate that ASEAN and SAARC suppliers are still competitive in the United States market. In addition, the market share of the China has increased in the United States market (tables 17 and 18). China's share in terms of value rose to 19 per cent in 2006 compared with 13 per cent in 2004. In terms of volume, the rise over the same period was from 22 per cent to just over 30 per cent. The question is, then, which suppliers to the United States market are being displaced? Aside from former large quota suppliers in East Asia (the Republic of Korea, China, Taiwan Province of China, Hong Kong, China, and Macau, China), the big losers in the United States market have been preferential suppliers to that market under various bilateral and unilateral preference agreements. The growth in the value and volume of shipments by major preferential suppliers of textiles and clothing in the United States market have consistently been negative since the system of quotas was eliminated. The value of shipments from NAFTA partners (Canada and Mexico) has fallen each year (table 13) and volumes of NAFTA partners are also consistently negative (table 14). The members of the African Growth and Opportunity Act (AGOA) preference scheme had large negative growth in both value and volume (tables 13 and 14). The members of the Central America-Dominican Republic-United States Free Trade Agreement (CAFTA-DR) recorded negative growth in the value of shipments as well. United States preference programmes with restrictive rules of origin (particularly NAFTA) have performed poorly since quotas were eliminated. The relaxed rules of origin used in agreements with Egypt and Jordan have allowed these preferential suppliers to increase shipments to the United States market, although from a low base and in amounts that cannot reverse the overall trend for preferential suppliers as a whole. Whether or not this trend will continue may crucially depend on the implementation of the CAFTA-DR agreement, which was delayed by legal difficulties in some of the member countries. CAFTA-DR has more liberal rules of origin than NAFTA in that it allows cumulation across members, and between CAFTA-DR and NAFTA itself.

Market shares of major preferential suppliers in the United States market have deteriorated since 2004 in both value (table 15) and volume (table 16). Restrictions on China's shipments appear to have had little positive effect on United States' preference-receiving suppliers except perhaps to have slightly slowed down the pace of decline in market shares. Further analysis of market share trends over time will help to verify whether the trend can be reversed, as CAFTA-DR is a huge supplier and has advantages over Asian suppliers in terms of proximity and delivery time to the United States.

## **B. External tariff and non-tariff obstacles facing Asian and Pacific suppliers in major markets**

The United States and the European Union constitute by far the largest markets for textile and apparel imports globally, and together they account for the bulk of shipments from suppliers in Asia and the Pacific. The main form of protection in these two large markets, aside from the recently introduced safeguard quotas on selected products from China, is in the form of tariffs. United States tariffs on cotton apparel are typically in the range of 10 per cent to 20 per cent; however, for synthetic fabric apparel, peak tariffs of more than 30 per cent are applied on a "most favoured nation" (MFN) basis. The European Union also has relatively high tariffs on textiles and clothing on an MFN basis. Japan has somewhat lower ad valorem tariffs but has hundreds of specific tariff rates on textile products that can be highly restrictive.

A number of Asia-Pacific region suppliers are attempting to gain preferential access to the United States market through bilateral FTAs. Singapore is the only Asia-Pacific developing country to have an FTA with the United States that has entered into force. However, Singapore has a very small capacity in textiles and apparel and is not a major supplier to the United States market. (Neither is Australia, which also has a FTA with the United States). In any case, the rules of origin in the Singapore-United States FTA are highly restrictive, along similar lines to NAFTA (James, 2006). A significant recent development is the conclusion of FTA negotiations between the United States and the Republic of Korea. The agreement's provisions for rules of origin in textiles and clothing are similar to those in the United States-Singapore case, with a restrictive "yarn-forward" rule that requires use of regional yarn and fabric.<sup>9</sup> Details of rules governing non-regional yarns and fabrics remain to be worked out. The Republic of Korea has significantly greater capacity as a supplier, particularly of textile intermediate products and clothing. The agreement mandates immediate reciprocal duty-free treatment for qualifying shipments of textiles and fabric. (However, there is also a special safeguard provision for the United States to fall back on, should textile and clothing imports from the Republic of Korea surge). Hence, trade diversion from competitive Asian suppliers to Korean suppliers in the United States market is a possibility.

The United States (like the European Union) is contemplating greater use of trade remedies to stem the inflow of shipments of textiles and clothing from competitive Asian suppliers. In particular, the United States is targeting Viet Nam and is implementing a vigorous monitoring programme of shipments from Viet Nam for the purpose of anti-dumping investigations and measures. The United States insisted upon this requirement as part of Viet Nam's WTO Accession Agreement (EmergingTextiles.com, 2007c). It is also likely that China will face anti-dumping measures in future, once the safeguard quotas are eliminated at the end of 2008. China is regarded as a "non-market" economy, and the United States has until 2016 to impose anti-dumping duties unilaterally on that basis on shipments from China.

Another worrisome trend is the push in the United States Congress to exclude textiles and clothing from the Doha Round Agreement. The issue may be moot, as the Bush administration was not successful in obtaining an extension of the negotiating authority under the Trade Promotion Act (TPA) after it expired on 30 June 2007. Failure of the Doha Round to move forward will have adverse consequences in that it will leave high MFN tariffs in the United States, European Union and Japan untouched, even as those countries continue to pursue more bilateral trade agreements with restrictive rules of origin.

### **C. Internal tariff and non-tariff barriers to trade and investment in Asian and Pacific textiles and clothing**

The presence of internal barriers to regional integration of Asian-Pacific textile and apparel sectors has been recognized as a major problem that requires urgent consideration by governments in the region. In 2006, the ASEAN Secretariat commissioned a study of NTMs and their impact on efforts to create a single ASEAN market in three of the 12 priority sectors that ASEAN leaders have identified in their efforts to

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<sup>9</sup> A summary of the agreement can be downloaded from the Office of Textiles and Apparel, United States Department of Commerce homepage at [www.otexa.ita.doc.gov/](http://www.otexa.ita.doc.gov/). See also Asian Development Bank, 2006.

create an ASEAN Economic Community (AEC) by 2015. A brief summary of the findings of a report on NTMs in textiles and clothing (James and others, 2007) follows.

The inventory of NTMs restricting intra-ASEAN trade in textiles and clothing is evaluated in seven major supplier countries – Cambodia, Indonesia, the Lao People's Democratic Republic, Malaysia, the Philippines, Thailand and Viet Nam. The occurrence of NTMs, the consistency with which observed NTMs are applied, and the degree of restrictiveness they pose for trade in textiles and clothing are estimated based upon a sample of respondents. The most frequently occurring NTMs are those involving customs administration, followed by taxes and tariffs, technical barriers, investment, outward processing arrangements, and political economy and institutions. The most restrictive NTMs were those on outward processing arrangements (OPAs), followed by investment, subsidies, taxes and tariffs, political economy and institutions, and customs administration with moderate to critical values. Structural change characterizes the textile and apparel sectors, with smaller countries (Cambodia and the Lao People's Democratic Republic) becoming more specialized in clothing exports and larger, more developed countries (Indonesia, Malaysia and Thailand) maintaining substantial textile capacities. The Philippines is undergoing transformation into a specialized clothing exporter as its textile sector is contracting. In Viet Nam, the opposite is occurring through FDI flows into textile production. ASEAN integration in textiles and clothing is limited, and restrictions on investment and OPAs are serious obstacles to efficient development of production networks.

SAARC is also likely to consider designating textiles and apparel as priority sectors for regional integration. It is widely recognized that South Asia is among the world's least integrated regions, due in large part to the historical legacy of conflict between the two largest member countries, India and Pakistan. A study of internal barriers to integration of the textile and apparel industry would be necessary to provide a detailed analysis of the problem. Fortunately, it is likely that such a study will be forthcoming in the near future. However, for now, it is worth noting that the SAARC member countries maintain high tariff and non-tariff barriers to trade in textiles and apparel, and have excluded hundreds of tariff lines (mainly in textile fabrics) from liberalization under the South Asian Free Trade Agreement (SAFTA), which recently entered into force.

Only Bhutan, Maldives and Sri Lanka have refrained from large-scale exclusions in textile intermediate products among SAARC members. Of these three countries, Sri Lanka is the only SAARC member with a substantial textile and apparel capacity and it makes little use of fabric from within SAARC, preferring instead to import fabric from East and South-East Asia. Despite the severity of the internal restrictions on trade between Bangladesh, India, Nepal and Pakistan (the other main SAARC suppliers), potential for integration in these sectors in the long term is very favourable. Bangladesh and Nepal (like Sri Lanka) tend to specialize in garment production (although Bangladesh has a large spinning and knitting capacity). India and Pakistan have large domestic supplies of raw materials (especially cotton), and India is a competitive supplier of synthetic fabric and numerous inputs related to textile and clothing production. While Nepal together with Pakistan specialize in cotton apparel, India and Sri Lanka have large capacities in synthetic apparel. In addition, Bangladesh is a competitive supplier of most types of ready-made garments. Freeing internal trade in textile intermediate products would be a significant step towards taking advantage of the potential for regional integration in South Asia.

The creation of an Asian-Pacific Textile and Clothing Community would help to boost the competitiveness of suppliers from developing countries within the region, and would help offset the discriminatory effects the region faces in major markets from the proliferation of bilateral FTAs. ASEAN efforts to create a single market in textiles and apparel would be an important milestone in developing a broader regional agreement. The ASEAN-based suppliers are intent upon developing OPAs in order to take advantage of the competitive prowess of the 10 member States. The recent successful development of OPAs between Thailand and the Lao People's Democratic Republic is a case in point. Thai-Lao cooperation has enabled suppliers of cotton apparel in the Lao People's Democratic Republic to enter the United States market. Similar arrangements are envisioned between Malaysia and Viet Nam, Cambodia and Thailand, Indonesia and Viet Nam, and eventually extending to Myanmar. The Philippines is developing OPAs, through Hong Kong, China, with suppliers in China. These arrangements can form the basis for wider regional cooperation. If SAARC members can join in the process, possibly through subregional agreements, this would further boost the process. Signaling that a region-wide open trade regime in intermediate textile products was in the works would also attract FDI flows that would strengthen technological capacities and production networks in textiles and clothing in the region.

#### **D. Policy implications and conclusions**

The adoption of policy measures is vital to enhancing competitiveness between the present and the end of 2008, when safeguard measures restricting China's shipments to the United States market will end. In the case of the European Union, safeguards are currently scheduled to end in 2007 (year-end).<sup>10</sup> Competition will become more intense in 2008 and 2009 and in the following years. Hence, there is a limited window of opportunity for competitive Asian suppliers to prepare themselves.

Private sector efforts to boost productivity at the level of the firm or manufacturing establishment through improved management of the entire value chain can be supported by government efforts to facilitate trade (Azhari, 2007). Trade facilitation measures are identified as any means of easing the movement of goods across borders. The most important areas where government actions can influence the ease of movement of goods across international borders include improved customs administration (including reducing corruption), better port handling, and efficiency and improvement in the quantity and quality of infrastructure. Trade agreements aimed at fostering integration by removing internal barriers to trade in intermediate textile products are clearly important in allowing private enterprises to exploit opportunities. The combination of private sector investment and management improvement, trade facilitation and trade agreements are immediate areas where competitive Asian suppliers can work to enhance overall competitiveness.

The reduction of tariff and non-tariff barriers to trade needs to be accelerated if intraregional trade in textile and related inputs is to grow in line with potential. In the case of SAARC, the member countries have all but precluded the healthy integration of the textile and clothing sectors in the region by excluding most products in HS 50-63 (textiles and clothing) from liberalization under SAFTA. In contrast, ASEAN has already

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<sup>10</sup> See European Commission, 2005 for the schedule of European Union safeguard quotas. The agreement notes that the European Union will undertake restraint in exercising its rights under the terms of China's WTO Accession Agreement in 2008.

implemented tariff reductions in these sectors, particularly for textile yarns and fabrics under the Common Effective Preferential Tariff (CEPT).<sup>11</sup>

Taxes and investment regulations may also be reformed to encourage integration through development of OPAs. In particular, domestic taxes on imported raw materials such as cotton and on intermediate inputs such as yarns, fabrics and accessories may discourage development of OPAs within the region. Restrictions on foreign investment have also limited integration of Asian suppliers. Removal of barriers and restrictions on FDI through mergers and acquisitions would spur intraregional trade and enhance competitiveness. Reductions of trade costs and time delays in moving inputs and outputs across borders could be the key to whether or not the industry survives and thrives after the end of China safeguards, particularly in smaller Asian suppliers of apparel to world markets. For larger countries with integrated textile and apparel sectors, trade cost reduction is the *sine qua non* for remaining competitive and for enhancing market share in large world markets for textiles and apparel, particularly if the Doha Round continues to be kept on hold.

Among the measures that could immediately benefit textile and clothing producers within ASEAN, going to zero CEPT tariffs on textile intermediate products without exception and adoption of an ASEAN green lane for shipments from member countries to member countries (even if transiting through a non-member country) are recommended. ASEAN is engaged in broader liberalization negotiations with China, Japan, the Republic of Korea and India, and thus could provide a uniform template for intraregional trade in textiles and apparel. A consistent set of rules of origin with a provision for regional cumulation and a choice of complying through a threshold value-added, maximum non-regional content percentage or a specified process (production of fabric from yarn, cutting and sewing of fabric into clothing) would be an important step in avoiding the increasingly complex "noodle-bowl" of rules of origin.

In addition, ASEAN-plus agreements could help the region to avoid developing into a series of competing hub and spoke systems by linking all the spokes together under one set of rules. This would benefit businesses by simplifying their decision-making, and by providing an environment conducive to intraregional investment and trade.

Asian suppliers of textiles and clothing can face the future with confidence and bank on continued growth if steps are taken now to prepare for the rising competition over the next two years or so.

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<sup>11</sup> Trade in intermediate products for exporters is also benefited by duty exemption and drawback schemes in the member countries of both SAARC and ASEAN, but these arrangements discourage the development of an integrated domestic industry and encourage the use of fabric and yarn from non-member suppliers. This is not necessarily a bad idea, as it makes sense to purchase inputs from the lowest cost suppliers. However, timidity in reducing internal barriers to trade in textile products reduces the opportunity for firms to attain economies of scale and to develop regional production networks.

**Table 1. ASEAN Textile and Clothing Shipments to the US Market (value in Million US\$)**

Item	2004	2005	% change	2006	% change	YTD 2006	YTD 2007	% change
Apparel	11 150.937	11 955.637	7.22	13 830.420	15.68	1 159.727	1 235.483	6.53
Cotton	6 502.655	7 428.404	14.24	8 772.408	18.09	764.568	764.567	0.00
MMF	4 140.168	4 084.148	-1.35	4 616.250	13.03	372.639	432.645	16.10
Wool	400.385	320.950	-19.84	316.927	-1.25	13.344	15.950	19.53
Silk & Veg	107.728	122.135	13.37	124.836	2.21	9.176	22.321	143.25
Textiles	992.521	832.651	-16.11	842.264	1.15	76.505	67.217	-12.14
Yarn	151.179	153.356	1.44	179.941	17.34	17.274	12.047	-30.26
Fabric	235.052	180.056	-23.40	173.367	-3.71	18.418	14.343	-22.13
Made-ups	606.290	499.239	-17.66	488.956	-2.06	40.814	40.827	0.03
Grand Total	12 143.457	12 788.288	5.31	14 672.683	14.74	1 236.232	1 302.700	5.38

Source: Office of Textiles and Apparel (OTEXA) homepage (<http://otexa.ita.doc.gov/msrcty/v31.htm>).

Notes: YTD is for January.

ASEAN includes Brunei, Cambodia, Indonesia, Lao PDR, Malaysia, Myanmar, Philippines, Singapore, Thailand and Viet Nam.

**Table 2. ASEAN Textile and Clothing Shipments to the US Market (volume in million square meter equivalents)**

Item	2004	2005	% change	2006	% change	YTD 2006	YTD 2007	% change
Apparel	3 468.490	3 668.415	5.76	4 255.96	16.02	360.632	364.646	1.11
Cotton	1 799.28	2 046.93	13.76	2 443.877	19.39	216.055	205.001	-5.12
MMF	1 597.655	1 561.274	-2.28	1 754.382	12.37	141.622	154.399	9.02
Wool	42.584	33.402	-21.56	32.089	-3.93	1.251	1.447	15.67
Silk & veg	28.969	26.813	-7.44	25.608	-4.49	1.704	3.799	122.95
Textiles	1 671.107	1 476.278	-11.66	1 498.065	1.48	146.419	110.177	-24.75
Yarn	449.144	470.900	4.84	529.839	12.52	52.332	34.464	-34.14
Fabric	518.964	399.366	-23.05	382.596	-4.20	42.217	31.236	-26.01
Made-ups	702.998	606.011	-13.80	585.630	-3.36	51.870	44.477	-14.25
Grand Total	5 139.597	5 144.693	0.10	5 754.022	11.84	507.051	474.823	-6.36

Source: Office of Textiles and Apparel (OTEXA) homepage (<http://otexa.ita.doc.gov/msrcy/v31.htm>).

Notes: YTD is for January.

ASEAN includes: Brunei, Cambodia, Indonesia, Lao PDR, Malaysia, Myanmar, Philippines, Singapore, Thailand and Viet Nam.



**Table 3. SAARC Members Textile and Clothing Shipments to the US Market (Value in Million US\$)**

Item	2004	2005	% change	2006	% change	YTD 2006	YTD 2007	% change
Apparel	6 979.693	8 318.136	19.18	9 246.990	11.17	829.129	853.333	2.92
Cotton	4 873.042	6 288.511	29.05	7 341.767	16.75	655.649	701.194	6.95
MMF	1 832.570	1 780.501	-2.84	1 703.353	-4.33	154.632	135.827	-12.16
Wool	186.136	176.582	-5.13	122.142	-30.83	8.469	7.123	-15.89
Silk & veg	87.943	72.543	-17.51	79.142	9.10	10.376	9.189	-11.44
Textiles	2 980.977	3 432.596	15.15	3 820.504	11.30	326.475	326.603	0.04
Yarn	148.683	152.247	2.40	187.308	23.03	15.881	12.185	-23.27
Fabric	527.323	451.647	-14.35	432.234	-4.30	36.722	29.143	-20.64
Made-ups	2 304.971	2 828.702	22.72	3 200.964	13.16	273.872	285.276	4.16
Grand Total	9 960.670	11 750.732	17.97	13 066.910	11.20	1 155.605	1 179.936	2.11

Source: Office of Textiles and Apparel (OTEXA) homepage (<http://otexa.ita.doc.gov/msrcy/v31.htm>).

Note: YTD is for January.

**Table 4. SAARC Members Textile and Clothing Shipments to the US Market (Volume in Million Square Meter equivalents)**

Item	2004	2005	% change	2006	% change	YTD 2006	YTD 2007	% change
Apparel	2 520.172	2 965.822	17.68	3 286.059	10.80	280.869	306.797	9.23
Cotton	1 675.623	2 161.247	28.98	2 544.152	17.72	213.840	241.040	12.72
MMF	796.253	765.114	-3.91	711.965	-6.95	64.111	63.471	-1.00
Wool	23.779	22.561	-5.12	14.513	-35.67	0.980	0.694	-29.18
Silk & veg	24.517	16.898	-31.08	15.365	-9.07	1.940	1.592	-17.94
Textiles	4 003.602	4 512.336	12.71	4 944.333	9.57	420.356	395.874	-5.82
Yarn	442.052	501.524	13.45	591.973	18.03	51.997	37.590	-27.71
Fabric	832.942	818.918	-1.68	842.190	2.84	66.225	60.508	-8.63
Made-ups	2 728.608	3 191.894	16.98	3 510.171	9.97	302.137	297.775	-1.44
Grand Total	6 523.774	7 478.158	14.63	8 230.390	10.06	701.226	702.671	0.21

Source: Office of Textiles and Apparel (OTEXA) homepage (<http://otexa.ita.doc.gov/msrcity/v31.htm>).

Note: YTD is for January.

**Table 5. World Textile and Clothing Shipments to the US Market (value in Million US\$)**

Item	2004	2005	% change	2006	% change	YTD 2006	YTD 2007	% change
Apparel	64 767.673	68 713.251	6.09	71 629.170	4.24	5 494.750	6 097.183	10.96
Cotton	37 398.877	41 141.989	10.01	43 411.020	5.52	3 437.372	3 827.006	11.34
MMF	20 446.088	20 763.698	1.55	21 586.054	3.96	1 546.523	1 779.866	15.09
Wool	3 964.110	4 129.963	4.18	3 938.308	-4.64	175.352	181.497	3.50
Silk & veg	2 958.598	2 677.600	-9.50	2 693.788	0.60	335.504	308.815	-7.95
Textiles	18 542.769	20 492.245	10.51	21 647.947	5.64	1 790.763	1 852.991	3.47
Yarn	1 648.168	1 714.056	4.00	1 603.642	-6.44	146.607	122.854	-16.20
Fabric	5 637.508	5 719.123	1.45	5 472.441	-4.31	459.567	439.567	-4.35
Made-ups	11 257.094	13 059.066	16.01	14 571.865	11.58	1 184.589	1 290.681	8.96
Grand Total	83 310.442	89 205.496	7.08	93 227.117	4.51	7 285.513	7 950.174	9.12

Source: Office of Textiles and Apparel (OTEXA) homepage (<http://otexa.ita.doc.gov/msrcy/v31.htm>).

Note: YTD is for January.

**Table 6. World Textile and Clothing Shipments to the US market (volume in million square meter equivalents)**

Item	2004	2005	% change	2006	% change	YTD 2006	YTD 2007	% change
Apparel	19 951.000	22 009.810	10.32	22 538.970	2.40	1 697.452	1 918.708	13.03
Cotton	11 233.600	12 796.240	13.91	13 458.380	5.17	1 026.355	1 169.493	13.95
MMF	7 635.154	8 199.449	7.39	8 164.944	-0.42	580.514	672.358	15.82
Wool	265.803	286.390	7.75	260.428	-9.07	10.559	10.607	0.45
Silk & veg	816.434	727.732	-10.86	655.220	-9.96	80.025	66.250	-17.21
Textiles	26 985.150	28 829.090	6.83	29 607.210	2.70	2 503.504	2 373.456	-5.19
Yarn	3 514.765	3 629.934	3.28	3 629.065	-0.20	337.319	279.279	-17.21
Fabric	9 250.048	9 521.842	2.94	8 872.873	-6.82	800.852	705.588	-11.90
Made-ups	14 220.330	15 677.310	10.25	17 105.270	9.11	1 365.333	1 388.589	1.70
Grand Total	46 936.140	50 838.900	8.32	52 146.180	2.57	4 200.957	4 292.164	2.17

Source: Office of Textiles and Apparel (OTEXA) homepage (<http://otexa.ita.doc.gov/msrcy/v31.htm>).

Note: YTD is for January.

**Table 7. China Textile and Clothing Shipments to the US (value in Million US\$)**

Item	2004	2005	% change	2006	% change	YTD 2006	YTD 2007	% change
Apparel	8 927.864	15 142.869	69.61	18 157.487	19.91	1 119.322	2 013.278	79.87
Cotton	2 754.941	6 003.881	117.93	7 855.387	30.84	442.544	1 056.337	138.70
MMF	3 354.830	5 680.036	69.31	6 915.745	21.76	354.138	658.277	85.88
Wool	370.241	1 232.224	232.82	1 505.559	22.18	41.117	49.805	21.13
Silk & veg	2 447.852	2 226.727	-9.03	2 240.797	0.63	281.523	248.859	-11.60
Textiles	5 630.213	7 262.350	28.99	8 549.186	17.72	695.358	796.153	14.50
Yarn	23.584	57.983	145.86	71.607	23.50	5.660	7.749	36.91
Fabric	552.095	838.937	51.96	900.076	7.29	82.245	87.216	6.04
Made-ups	5 054.533	6 365.429	25.94	7 577.502	19.04	607.454	701.189	15.43
Grand Total	14 558.077	22 405.219	53.90	27 066.673	20.81	1 814.680	2 809.431	54.82

Source: Office of Textiles and Apparel (OTEXA) homepage (<http://otexa.ita.doc.gov/msrcdy/v31.htm>).

Note: YTD is for January.

Table 8. China Textile and Clothing Shipments to the US (volume in million square meter equivalents)

Item	2004	2005	% change	2006	% change	YTD 2006	YTD 2007	% change
Apparel	2 972.523	5 883.431	97.93	6 506.037	10.58	411.186	690.695	67.98
Cotton	1 106.325	2 543.580	129.91	2 976.500	17.02	187.843	361.109	92.24
MIMF	1 139.026	2 596.630	127.97	2 824.571	8.78	146.925	267.242	81.89
Wool	24.677	99.022	301.27	122.191	23.40	3.544	4.247	19.84
Silk & veg	702.495	644.200	-8.30	582.776	-9.53	72.864	58.097	-20.27
Textiles	8 689.769	10 879.670	25.20	12 104.860	11.26	976.580	1 020.778	4.53
Yarn	41.105	117.442	185.71	208.777	77.77	16.971	20.329	19.79
Fabric	927.309	1 651.858	78.13	1 491.688	-9.70	160.412	143.225	-10.71
Made-ups	7 721.355	9 110.373	17.99	10 404.390	14.20	799.196	857.223	7.26
Grand Total	11 662.292	16 763.101	43.74	18 610.890	11.02	1 387.767	1 711.472	23.33

Source: Office of Textiles and Apparel (OTEXA) homepage (<http://otexa.ita.doc.gov/msrcy/v31.htm>).

Note: YTD is for January.

**Table 9. ASEAN Textile and Clothing market Shares  
in the US Market in Value (%)**

	2004	2005	2006	YTD 2007
<b>Clothing, all items</b>	17.22	17.40	19.31	20.26
Cotton	17.39	18.06	20.21	19.98
MMF	20.25	19.67	21.39	24.31
Wool	10.01	7.77	8.05	8.79
Silk & veg	3.64	4.56	4.63	7.23
China-restricted clothing items	16.30	17.88	19.76	21.77
<b>Textiles, all items</b>	5.35	4.06	3.89	3.63
Yarn	9.17	8.95	11.22	9.81
Fabric	4.17	3.15	3.17	3.26
Made-ups	5.39	3.82	3.36	3.16
China-restricted textile items	4.13	3.16	3.50	3.17
<b>Grand total all items</b>	14.58	14.34	15.74	16.39
China-restricted items	15.00	15.88	18.06	19.88

Source: Author's compilations.

**Table 10. ASEAN Textile and Clothing Market Shares  
in the US market in Volume (%)**

	2004	2005	2006	YTD 2007
<b>Clothing, all items</b>	17.39	16.67	18.88	19.00
Cotton	16.02	15.96	18.16	17.53
MMF	20.92	19.04	21.49	22.96
Wool	16.02	11.66	12.32	13.64
Silk & veg	3.55	3.68	3.91	5.73
China-restricted clothing items	14.09	14.24	17.74	18.29
<b>Textiles, all items</b>	6.19	5.12	5.06	4.64
Yarn	12.78	12.97	14.60	12.34
Fabric	5.61	4.19	4.31	4.43
Made-ups	4.94	3.87	3.42	3.20
China-restricted textile items	3.98	3.23	3.93	3.52
<b>Grand total all items</b>	10.95	10.12	11.03	11.06
China-restricted items	9.96	9.74	12.18	12.89

Source: Author's compilations.

**Table 11. SAARC Textile and Clothing Market Shares  
in the US Market in Value (%)**

	2004	2005	2006	YTD 2007
<b>Clothing, all items</b>	10.78	12.11	12.91	15.53
Cotton	13.03	15.28	16.91	20.40
MMF	8.96	8.58	7.89	8.78
Wool	4.70	4.28	3.10	4.06
Silk & veg	2.97	2.71	2.94	2.74
China-restricted clothing items	10.06	11.84	12.92	14.99
<b>Textiles, all items</b>	16.08	16.75	17.65	18.24
Yarn	9.02	8.88	11.68	8.31
Fabric	9.35	7.90	7.90	6.34
Made-ups	20.48	21.66	21.97	24.08
China-restricted textile items	11.40	11.49	13.65	14.32
<b>Grand total all items</b>	11.96	13.17	14.02	16.20
China-restricted items	10.21	11.80	13.00	14.92

Source: Author's compilations.

**Table 12. SAARC Textile and Clothing Market Shares  
in the US Market in Volume (%)**

	2004	2005	2006	YTD 2007
<b>Clothing, all items</b>	12.63	13.48	14.58	18.07
Cotton	14.92	16.89	18.90	23.49
MMF	10.43	9.33	8.72	10.93
Wool	8.95	7.88	5.57	6.57
Silk & veg	3.00	2.32	2.35	1.99
China-restricted clothing items	11.01	12.19	14.31	16.29
<b>Textiles, all items</b>	14.84	15.65	16.70	15.81
Yarn	12.58	13.82	16.31	11.14
Fabric	9.00	8.60	9.49	7.56
Made-ups	19.19	20.36	20.52	21.81
China-restricted textile items	6.55	7.60	9.10	9.95
<b>Grand total all items</b>	13.90	14.71	15.78	16.73
China-restricted items	9.19	10.32	12.21	13.98

Source: Author's compilations.



**Table 13. Major Preferential Suppliers Performance in China Restricted Items in the US Market**  
(Value in Million US\$)

	2004	2005	% change	2006	% change	YTD 2006	YTD 2007	% change
Preferential Supplier:								
Canada	1 729.524	1 569.096	-9.28	1 442.931	-8.04	130.400	103.676	-20.49
Mexico	6 528.536	6 037.820	-7.52	5 354.143	-11.32	384.177	329.977	-14.11
CAFTA-DR	8 742.791	8 485.637	-2.94	7 943.048	-6.39	501.211	493.651	-1.51
ANDEAN	1 207.911	1 316.597	9.00	1 296.876	-1.50	96.906	99.530	2.71
AGOA	1 642.918	1 398.220	-14.89	1 244.216	-11.01	101.884	110.854	8.80
Egypt	424.731	442.412	4.16	615.171	39.05	45.863	60.288	31.45
Jordan	861.975	987.358	14.55	1 118.882	13.32	86.219	74.317	-13.80
Sub Total	21 138.386	20 237.140	-4.26	19 015.267	-6.04	1 346.660	1 272.293	-5.52

Source: Author's compilations.

Notes: CAFTA-DR includes Costa Rica, Dominican Republic, El Salvador, Guatemala, Honduras and Nicaragua.  
ANDEAN includes Bolivia, Colombia, Ecuador and Peru.  
AGOA includes 37 Sub-Saharan African Countries.

**Table 14. Major Preferential Suppliers Performance in China Restricted Items in the US Market**  
(Volume in Million Square Meter Equivalents)

	2004	2005	% change	2006	% change	YTD 2006	YTD 2007	% change
Preferential Supplier:								
Canada	1 622.185	1 536.676	-5.27	1 264.119	-17.74	121.738	85.375	-29.87
Mexico	2 569.924	2 384.993	-7.20	2 117.377	-11.22	157.408	130.679	-16.98
CAFTA-DR	3 419.604	3 512.882	2.73	3 211.127	-8.59	202.819	204.325	0.74
ANDEAN	226.923	225.749	-0.52	206.649	-8.46	15.847	15.688	-1.00
AGOA	399.425	351.122	-12.09	311.403	-11.31	25.410	29.042	14.29
Egypt	189.524	178.254	-5.95	201.420	13.00	17.950	17.787	-0.91
Jordan	188.390	222.830	18.28	251.690	12.95	20.120	16.333	-18.82
Sub Total	8 615.975	8 412.506	-2.36	7 563.785	-10.09	561.292	499.229	-11.06

Source: Author's compilations.

**Table 15. Major Preferential Suppliers Textile and Clothing Market Shares in the US Market in Value (%)**

	2004	2005	2006	YTD 2007
<b>Clothing, all items</b>	34.21	30.38	27.13	21.27
Cotton	40.69	34.76	30.52	23.05
MMF	29.41	27.56	25.13	20.64
Wool	22.53	19.91	18.57	25.12
Silk & veg	1.18	1.24	1.11	0.84
China-restricted clothing items	43.61	39.52	33.98	27.30
<b>Textiles, all items</b>	16.13	14.94	13.08	11.70
Yarn	42.20	41.45	39.65	42.28
Fabric	22.43	22.25	20.56	18.54
Made-ups	9.15	8.26	7.35	6.46
China-restricted textile items	21.81	20.09	19.06	16.21
<b>Grand total all items</b>	25.37	22.69	20.40	16.00
China-restricted items	41.28	37.35	32.42	26.17

Source: Author's compilations.

Note: Major Preferential Suppliers are those identified in Table 13.

**Table 16. Major Preferential Suppliers Textile and Clothing Market Shares in the US Market in Volume (%)**

	2004	2005	2006	YTD 2007
<b>Clothing, all items</b>	35.13	30.54	26.98	21.26
Cotton	41.40	35.05	30.53	23.39
MMF	29.96	26.52	23.55	19.56
Wool	22.75	18.89	16.66	22.44
Silk & veg	1.17	1.02	0.92	0.77
China-restricted clothing items	42.30	38.34	34.81	27.02
<b>Textiles, all items</b>	20.65	18.41	15.19	13.75
Yarn	44.19	39.71	31.55	32.30
Fabric	28.14	25.79	22.97	20.37
Made-ups	9.97	8.99	7.69	6.68
China-restricted textile items	24.56	21.57	18.39	15.66
<b>Grand total all items</b>	26.80	23.66	20.29	17.11
China-restricted items	35.05	31.49	28.20	22.87

Source: Author's compilations.

Note: Major Preferential Suppliers are those identified in Table 13.

**Table 17. China Textile and Clothing Market Shares  
in the US Market in Value (%)**

	2004	2005	2006	YTD 2007
<b>Clothing, all items</b>	13.78	22.04	25.35	36.64
Cotton	7.37	14.59	18.10	30.73
MMF	16.41	27.36	32.04	42.56
Wool	9.34	29.84	38.23	28.40
Silk & veg	82.74	83.16	83.18	74.17
China-restricted clothing items	10.92	15.98	17.61	26.98
<b>Textiles, all items</b>	30.36	35.44	39.49	44.46
Yarn	1.43	3.38	4.47	5.29
Fabric	9.79	14.67	16.45	18.98
Made-ups	44.90	48.74	52.00	59.19
China-restricted textile items	27.23	33.20	34.85	37.59
<b>Grand total all items</b>	17.47	25.12	29.03	38.56
China-restricted items	12.67	17.90	19.41	28.06

Source: Author's compilations.

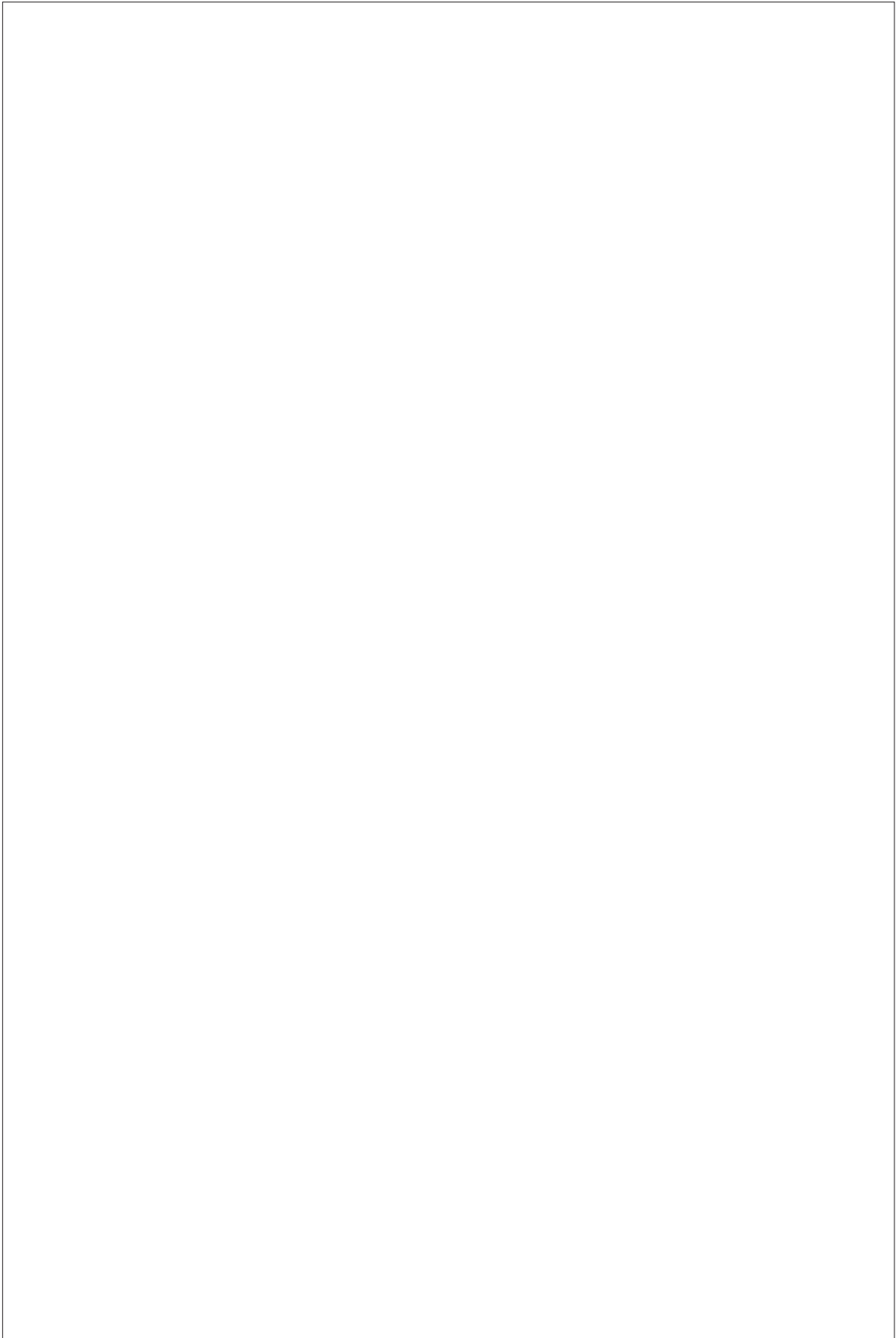
**Table 18. China Textile and Clothing Market Shares  
in the US Market in Volume (%)**

	2004	2005	2006	YTD 2007
<b>Clothing, all items</b>	14.90	26.73	28.87	36.00
Cotton	9.85	19.88	22.12	30.88
MMF	14.92	31.67	34.59	39.75
Wool	9.28	34.58	46.92	40.04
Silk and veg	86.04	88.52	88.94	87.69
China-restricted clothing items	12.46	21.14	20.72	29.26
<b>Textiles, all items</b>	32.20	37.74	40.88	43.01
Yarn	1.17	3.24	5.75	7.28
Fabric	10.02	17.35	16.81	20.30
Made-ups	54.30	58.11	60.83	61.73
China-restricted textile items	35.81	42.57	44.07	45.53
<b>Grand total all items</b>	24.85	32.97	35.69	39.87
China-restricted items	22.00	29.89	30.13	35.20

Source: Author's compilations.

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## **IV. DOES CHINA HAVE A COMPETITIVE ADVANTAGE IN THE LOW-END GARMENT INDUSTRY? A CASE STUDY APPROACH**

*By Bala Ramasamy and Matthew Yeung\**

### **Introduction**

A new era began in the textile and garment industry on 1 January 2005. A four-decade long system of trade restraints on the exports of textiles and garments ended with the full implementation of ATC. An import quota system practiced by the developed countries (particularly the United States and the European Union), while aimed at protecting domestic producers in those countries, provided a ready market for textile and garment producers in developing countries despite their inefficiencies in production. The removal of the quotas and the re-emergence of China and India as economic powerhouses have posed serious problems for several Asian developing economies (e.g., Cambodia, Indonesia, Mongolia and the Lao People's Democratic Republic). Trade economists feared that these countries would be unable to compete with China despite a temporary safeguard measure imposed by the European Union and the United States that is valid until the end of 2008 (Nordås, 2004).

China's pre-eminent position as the world's largest exporter of textiles and garments is beyond doubt. The ADB reported that in 2005 China controlled more than a quarter of the market share of clothing imports in the United States and a third of the European Union's imports of textile and clothing. What drives China's advantage in this industry? Macro studies tend to point to, among other factors, China's low labour costs. However, economic development in China is also pushing wage rates upwards. To what extent is the low labour cost argument true? What are other drivers that cement China's position as the "tailor to the world"? To what extent are restrictive trade policies affecting individual firms? Can Chinese garment manufacturers continue to dominate the garment industry in the long term? This chapter attempts to answer these questions by using a case study approach. Other studies have considered similar questions at a macro level (Dayaratna-Banda and Whalley 2007; Tong, 2006; Yamagata, 2007; Yang, 1995, 1999; Yang and Zhong, 1998). However, in-depth case studies of garment manufacturers are capable of providing insights that could help producers and policy makers in their decision-making. In this chapter, a comparison is made of two garment manufacturers – one located in Beijing and the other in Jakarta – their cost structures and the challenges they face in their respective countries.

Section A provides a general discussion of the trade policies within the garment industry and its implications for China. Section B provides an overview of the garment industry in China. Section C introduces the methodology used in this study, particularly a description of the manufacturers who form the basis of the study. Section D provides the findings, followed by a discussion of the results in section E.

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### **A. Quotas, no quotas, more quotas**

Historically, the textile and garment industry has been the most regulated manufacturing sector in international trade. In an effort to protect their domestic industries, the European Union and the United States restricted imports of textiles from Japan in the 1950s and 1960s. These restrictions were then extended to countries such as India, Hong Kong, China, and Pakistan. These restraints, which were complex in nature, were brought together under the MFA in 1974. Developed countries were allowed to impose export restraints on developing countries under the MFA if there was evidence of market disruptions in their home markets. The MFA quota regime and increasing labour costs resulted in the outsourcing of labour-intensive production of garments to low-cost countries following the “flying geese pattern”, i.e., from Japan to the newly industrialized countries to South-East Asia. As China and Viet Nam ventured into reforms of their respective economies, they also have been recipients of these investments. Unexpectedly, the MFA resulted in the emergence of garment industries in countries that did not have a true competitive advantage in the sector (Deutsche Bank, 2005). However, this provided a launching pad for industrialization among LDCs (Nordås, 2004; Brenton and Hoppe, 2007).

On 1 January 1995, the plan to phase out the MFA during the following 10 years led to ATC, under which quotas were to be gradually removed in four stages resulting in a complete no-quota environment on 1 January 2005. The growing economic prowess of China and its accession to WTO in 2001 were perhaps in the minds of negotiators since ATC allowed importers to impose safeguard measures if there was evidence to show there as an imminent threat to their own domestic industry. Although China was excluded from the agreement in the initial phases, the increase in quotas in the earlier stages was grandfathered into the later stages when China acceded to WTO. However, a no-quota environment for China only lasted a few months as the United States initiated safeguard measures on 12 apparel and textile products (later increased to 34 product categories) until the end of 2008.

The European Union was more supportive of liberalization in that it imposed safeguards on 10 product categories that were to last until 2008. The European Union also agreed that it would not extend the safeguards after 2008. Nevertheless, under the China accession protocol, member States can impose product-specific safeguard measures for 12 years after accession, and China’s status as a non-market economy allows other member States to impose anti-dumping and countervailing actions against China until 2016. Brazil, Canada, Mexico, Peru, South Africa and Turkey have thus far taken action against China. Ironically, while the objective of extending the quota environment was to protect domestic suppliers, research tends to suggest that imports from China are being diverted to other low-cost and perhaps less efficient international producers (Brambilla and others, 2007). Despite such evidence, the possibility of China experiencing a quota-free environment in the near future looks bleak. Thus, it is necessary for Chinese garment manufacturers to assume that a quota-imposed environment will continue for the next 10 years and to make the necessary strategic decisions.

### **B. Textile and garment industry in the Chinese economy**

The textile and garment industry has been a strategic component of China’s economy since 1949. Like many other industries, it had experienced both stagnancy and receding competitiveness by the end of the command economy era. Under the Reform and Opening-up Policy, the industry has undertaken major changes since the late



1970s. State-owned enterprises (SOEs) went through privatization, and private companies (including firms with foreign investment) have now become leading players in the industry.

The growth of the textile and garment industry has gone hand-in-hand with China's economic takeoff since the 1980s. Annual output increase in the garment industry during the past 20 years was about 15 per cent, relatively higher than the country's overall GDP growth of about 10 per cent a year. However, it has lost its position as the leading industrial sector in the Chinese economy. In 1985, the top five industries in China by proportion of total industrial output were textiles (12.1 per cent), food, beverages and tobacco (12 per cent), machinery (10.9 per cent), metallurgy (8.6 per cent) and construction materials (6.9 per cent). By 1995, the top five industries by proportion of total industrial output were food, beverages and tobacco (10.9 per cent), metallurgy (9.5), machinery (8.2 per cent), textiles (8.2) and construction materials (7.7 per cent). In 2005, textile output was ranked seventh (4.6 per cent) while the garment industry ranked seventeenth (1.9 per cent) among various industries (table 1).

In 1993, China became the world's leading exporter of textiles and garments. In 2005, industrial output reached US\$ 217.6 billion, with a total export value exceeding US\$ 100 billion. Although in terms of industrial output other more technology-based industries such as communications equipment, computers and other electronic equipment became more important, the growth in the manufacturing of textiles, wearing apparel, footwear and caps increased dramatically (see table 1).

Although China's textile and garment industry enjoyed continuous expansion and its share of GDP growth remained stable, its contribution to China's total exports appears to have decreased. In 1996, the industry accounted for 2.7 per cent of GDP and 6.5 per cent of total industrial output, and employed 12.4 per cent of the labour force. Comparatively, in 2005, the industry accounted for about 2.9 per cent of China's GDP, 7 per cent of China's total industrial output and 13.4 per cent of employment in industries. However, the following figure shows that the proportion of textile and garment exports decreased from 23.1 per cent in 1996 to 15.1 per cent in 2005. It should be noted, however, that the export value has tripled.

In 2005, China's total exports of textiles and garments amounted to US\$ 115 billion. The export of garments was US\$ 73.9 billion, among which Asia (42 per cent), EU 25 (19 per cent) and North America (21 per cent) were major destinations. Japan, the United States, Hong Kong, China, the European Union, the Russian Federation and the Republic of Korea were the major national markets. Jerseys, pullovers, cardigans etc. (HS Code 6110) comprised the largest exported category in 2006. As table 2 shows, China's total exports of knitted and non-knitted garments increased by 489 per cent and 200 per cent, respectively, but that exports of men's trousers and shirts were below industry average.

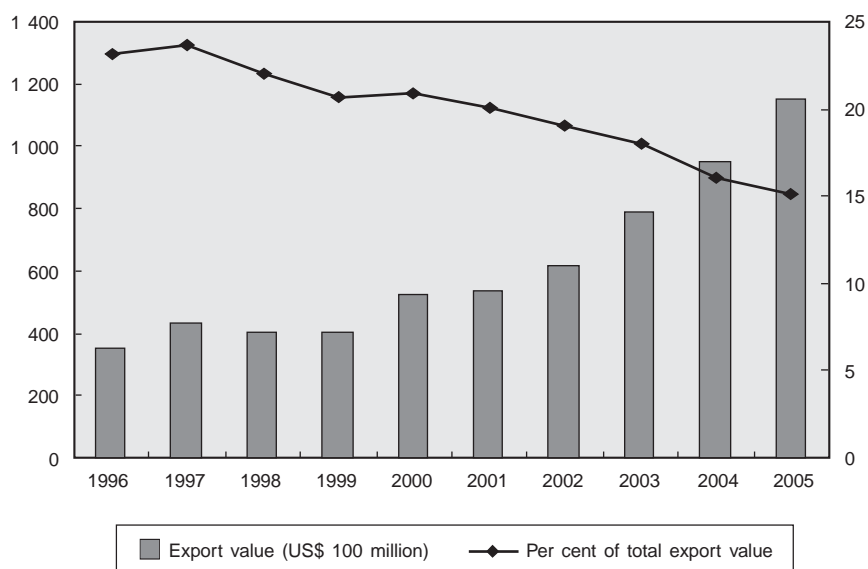
Prior to 2001, the textile and garment industry accounted for 5 per cent of FDI into China, and foreign enterprises contributed about 35 per cent of total exports. The increase of FDI in the industry has been higher than the national average since 2000. From 2000 to 2005, FDI into China grew by 48.2 per cent, while FDI into the textile and garment sector increased by 56.2 per cent. The major investors were from Hong Kong, China, Taiwan Province of China, Japan and the United States, and the investment primarily went to coastal regions. In 2006, FDI in the garment sector was 30.9 per cent of the total amount of investment while in the textile sector it amounted to 16.5 per cent. In December 2004, China lifted restrictions vis-à-vis region, equity structure and total number for foreign enterprises, and trends for expansion into China's inland areas are perceivable.

Table 1. China's leading industries by gross industrial output, 1999 and 2005

2005 ranking	Industry	Gross industrial output 1999 (Y 100 million)	Proportion of total industrial output, 1999 (%)	Gross industrial output 2005 (Y 100 million)	Proportion of total industrial output 2005 (%)	Per cent increase from 1999 to 2005
1	Communication equipment, computers and other electronic equipment	2 513.21	7.1	22 594.03	9.0	799
2	Smelting and pressing of ferrous metals	3 034.52	8.5	17 309.81	6.9	470
3	Production and supply of electric power and heat power	3 423.73	9.6	14 904.26	5.9	335
4	Manufacture of transport equipment	3 164.63	8.9	14 538.43	5.8	359
5	Manufacture of raw chemical materials and chemical products	2 605.09	7.3	14 027.74	5.6	438
7	Manufacture of textiles	1 547.67	4.4	11 655.12	4.6	653
17	Manufacture of textile wearing apparel, footwear and caps	142.39	0.4	4 668.52	1.9	3 179
	China total	35 571.18	100	251 619.50	100	607

Source: China National Bureau of Statistics.

**Export value of China's textile and garment industry, 1996-2005**



Source: Annual Report on China's International Trade in Textiles and Clothing, 2005-2006.

**Table 2. China's garment exports, 1996 and 2006: selected items**

HS Code	Garment type	Export value, 1996 (US\$)	Export value, 2006 (US\$)	Per cent increase
61	Articles of apparel, accessories, knit or crochet	7 626 391 947	44 900 426 797	489
62	Articles of apparel, accessories, not knit or crochet	14 570 613 800	43 720 321 656	200
6110	Jerseys, pullovers, cardigans etc., knit or crochet	2 529 116 127	12 858 753 806	408
610342	Men's or boys' trousers, overalls, breeches, cotton, knitted	101 250 996	349 186 224	245
610510	Men's or boys' shirts, cotton, knitted	33 510 330	144 144 213	330
620342	Men's or boys' trousers and shorts, cotton, not knit	1 067 967 088	3 214 116 820	201
620530	Men's or boys' shirts, man-made fibres	382 015 593	779 491 671	104

Source: United Nations Comtrade Database.

Despite growth in output and profitability in the textile and garment industry, 20 per cent of the small and medium-sized garment enterprises reported losses. State-owned enterprises now comprise less than 1 per cent of the total industry, while the private sector dominates the industry. In general, SOEs lag behind private and foreign enterprises in terms of profitability, although they appear to be larger in terms of average number of employees. Compared to domestically owned private firms, foreign enterprises are more capital intensive, suggesting higher technological standards. The correlation between asset/size ratio and profitability appears to support the perception that China's labour cost advantage in the textile and garment industry may be ebbing (table 3). For example, the average salary in Shenzhen rose nearly three-fold in the past 10 years, and a yarn worker in Zhejiang may earn 70 per cent more than a similar worker in Henan, an inland province that is rich in labour supply. Therefore, many manufacturers are already relocating to third-tier towns and even other provinces to retain cost advantage. Moving production locations to South-East Asia is also being considered as an option.

Location being a decisive factor, China's textile and garment industry is distinctively regionalized. The five coastal provinces, that is, Zhejiang, Guangdong, Jiangsu, Shanghai and Shandong, comprise the majority of industrial output by producing 81 per cent of chemical fibre, 60 per cent of yarn and 66 per cent of cloth. The five provinces combined account for 77.2 per cent of China's total export value of textiles and garments (tables 4 and 5).

China has emphasized the upgrading of industrial productivity by investing in the technology side. In 2005, the import value of equipment was US\$ 3.45 billion, an 80 per cent increase compared with 2000. The top five exporting provinces took up 83 per cent of the imports of equipment, mostly from Japan, Germany and Italy.

In sum, the textile and garment industry is vital for the national economy, employment, and foreign trade, not only for China but also for other labour-intensive economies including Cambodia, India, Indonesia, Pakistan and Viet Nam. The biggest future challenge for China's textile and garment industry is its competitive advantage. Cheap labour, which was once the source of this advantage, is gradually becoming scarcer, particularly in the coastal areas that continue to dominate China's textile and garment industry. China is losing this advantage to other developing countries in the region that are also rich in labour supply.

China has actively engaged in the global textile and garment market, although it is estimated that China is mainly producing OEM and only accounts for 10 per cent of the total value added of the end product.<sup>1</sup> China's textile and garment industry is heavily dependent on exports, and the end of ATC did not give China an easy passage to overwhelming market share. Rather, renewed trade disputes and barriers emerged. Therefore, China is trying to increase its efficiency in the textile and garment industry in the post-ATC era by upgrading technologies and improving supply chains etc. However, these measures will further undermine the cost advantage in low-end garment manufacture. Using a case study approach, the following sections show the loss of advantage that China is experiencing in these low value-added products. China is pressed to find a new competitive advantage in the global market.

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<sup>1</sup> [http://www.fdi.gov.cn/pub/FDI/zgjj/hyzk/zzy/fzgy/t20060419\\_23739.htm](http://www.fdi.gov.cn/pub/FDI/zgjj/hyzk/zzy/fzgy/t20060419_23739.htm), and [http://english.peopledaily.com.cn/200508/31/eng20050831\\_205457.html](http://english.peopledaily.com.cn/200508/31/eng20050831_205457.html)

Table 3. Ownership composition of China's textile and garment industries

Textiles	No. of Enterprises	Gross industrial output value (Y 100 million)	Average output value (Y 10 000)	Average total assets (Y 10 000)	Average revenue (Y 10 000)	Average profits (Y 10 000)	Average employees
SOE	905	923.87	10 208.51	14 647.40	10 206.85	-24.53	815
Private	12 879	5 035.94	3 910.19	2 604.98	3 807.09	139.08	139
Foreign invested	5 007	3 201.80	6 394.65	5 824.99	6 225.06	232.47	232
Other*	64 312	2 493.51	387.72	494.55	356.60	3.81	4
Total	83 103	11 655.12	1 402.49	1 296.91	1 352.19	38.24	38

Garments	No. of Enterprises	Gross industrial output value (Y 100 million)	Average output value (Y 10 000)	Average total assets (Y 10 000)	Average revenue (Y 10 000)	Average profits (Y 10 000)	Average employees
SOE	282	110.13	10 208.51	14 647.40	10 206.85	-24.53	411
Private	5 053	1 555.77	3 910.19	2 604.98	3 807.09	139.08	209
Foreign invested	5 110	2 290.07	6 394.65	5 824.99	6 225.06	232.47	350
Other*	37 841	712.55	387.72	494.55	356.60	3.81	49
Total	48 286	4 668.52	1 402.49	1 296.91	1 352.19	38.24	100

Source: Adapted from *China National Bureau of Statistics Yearbook, 2006*.

\* By definition, the "other" enterprises include all enterprises except SOEs, private and foreign invested enterprises in China. Collective-owned, share-holding cooperatives, joint operation enterprises belong to this classification.

**Table 4. Leading Provinces in the textile industry in China**

Province	Chemical fibre (10 000 tons)	Province	Yarn (10 000 tons)	Province	Cloth (100 million metres)
Zhejiang	660.33	Shandong	371.77	Zhejiang	96.20
Jiangsu	501.95	Jiangsu	335.60	Jiangsu	90.46
Shandong	95.38	Henan	141.80	Shandong	90.17
Fujian	70.12	Zhejiang	96.41	Guangdong	40.41
Shanghai	49.78	Hubei	89.82	Hebei	30.76
Guangdong	39.91	Hebei	68.59	Henan	23.65
Henan	39.73	Fujian	64.53	Hubei	23.40
Sichuan	26.56	Anhui	38.31	Fujian	21.69
Jilin	24.36	Guangdong	36.64	Chongqing	14.55
Liaoning	23.70	Xinjiang	27.90	Shaanxi	10.67
Hebei	22.67	Hunan	26.06	Sichuan	7.93
Tianjin	20.54	Sichuan	25.48	Anhui	6.66
Jiangxi	18.07	Jiangxi	20.44	Liaoning	5.71
Heilongjiang	17.83	Shaanxi	19.43	Jiangxi	4.12
Hubei	11.74	Liaoning	17.41	Hunan	3.70
Anhui	11.36	Guangxi	11.87	Shanxi	3.63
Hunan	8.29	Shanghai	11.65	Tianjin	2.85
Xinjiang	5.42	Shanxi	10.39	Shanghai	1.55
Hainan	4.61	Tianjin	7.32	Xinjiang	1.34
Yunnan	3.04	Chongqing	6.90	Heilongjiang	1.10

Source: *China Textile Industry Development Report 2005-2006*.

**Table 5. Chinese regional contributions to textile and garment exports and imports, 2005**

Province	Exports (US\$ 10 000)	Imports (US\$ 10 000)	Exports and imports (US\$ 10 000)	Exports, per cent of China total
Zhejiang	2 443 507	114 855	2 558 361	21.2
Guangdong	2 201 023	763 042	2 964 065	19.1
Jiangsu	1 881 968	204 166	2 086 133	16.3
Shanghai	1 286 866	227 549	1 514 415	11.2
Shandong	1 061 994	150 782	1 212 776	9.2
Five provinces combined	8 875 358	1 460 394	10 335 750	77.2
China total	11 503 337	1 713 619	13 216 956	100

Source: *Annual Report on China's International Trade in Textiles and Clothing, 2005-2006*.

## **C. Methodology**

In an effort to understand clearly the issues discussed above, we now focus on a representative garment factory in China and analyse its cost structure for a few selected products. As a comparison, a representative firm in Indonesia was selected and an attempt was made to obtain similar information. Although only the cost of cut, make and trim was considered, the problems faced by each producer at various levels of production were explored. In order to ensure valid comparability, the collection of cost data was limited to men's shirts and men's trousers. Since these product categories are basic in terms of fashion and standard in terms of design, comparing manufacturers in two different countries is possible. In this way, it is possible to highlight the competitive advantage of China, if any, to its counterpart in Indonesia. The latter country was for the comparison due to the importance of the industry to the Indonesian economy resulting from of the changes in quota arrangements.

Information was collected from in-depth, face-to-face interviews at the city where the manufacturers had their offices, i.e., Beijing and Jakarta. In the case of the Beijing manufacturer, the interviewee was the general manager of the company, while the Jakarta interviewee was the owner. In addition, three other garment manufacturers were interviewed – two in China and one in Jakarta – who were not engaged in the production of shirts and trousers, but had an in-depth knowledge of the industry. The interviews, which lasted between 2 hours and 2.5 hours, were conducted in a cordial manner. The interviewees were extremely helpful and more than willing to share their experience with the interviewers. Additional information was solicited through e-mail at later stages.

The interviews focused on a number of issues including the cost of production, availability of raw materials, labour quality and availability, quotas and tariffs, quality standards and requirements, customs procedures, and governance and regional agreements.

Brief profiles of the companies interviewed are provided below. The names of the companies have been kept confidential for competitive reasons.

### **1. Company A in Jakarta**

Established in 1989, Company A is a garment manufacturer in Jakarta, Indonesia. Starting from basic garment products, it has grown into a competitive regional and international market participant. It has developed two business units – Firm S for OEM and Firm T for proprietary branding. Firm S now boasts 800 employees, 10 production lines and an annual capacity of 2 million pieces. Firm T is of similar size, with a capacity of about 700 employees and 10 lines.

The main products of the company include woven and knitted ladies' apparel, blouses, skirts, trousers etc., and production is backed by digital technology. Firm S aims to be a solution provider by incorporating in-house facilities and by practicing rigid AQL quality controls. Production is divided into three departments: cutting, sewing and finishing. Both Firm S and Firm T have a daily output of about 5,000 pieces. Company A has been a supplier of many renowned apparel brands to the European Union and the United States, including Liz Claiborne, Quicksilver and Kellwood. About 60 per cent of its exports go to the United States, 30 per cent to the European Union and 10 per cent to the rest of the world. Firm S may have benefited from its locational advantage in east Jakarta's Export Processing Zone (e.g., efficiency in export procedures and enhanced security).

Company A aims to be a leader in the regional garment market by emphasizing both quality and corporate responsibility. Since 1998, Firm S has been a certified vendor of Target and Wal-Mart. In 2005, it obtained ISO 9002 Quality Certification. Firm S and Firm T also received their Worldwide Responsible Apparel Production (WRAP) certification in 2003 and 2007, respectively.

## **2. Company C in Beijing**

Company C is a SOE located in Beijing, and a leading SOE in the industry. It has a number of subsidiaries producing various types of textiles and garments. It also has a dedicated subsidiary that focuses on its international trading activities. With offices in Japan, the United States and the United Arab Emirates, Company C is among the top 100 garment exporters in China with a total export value of US\$ 75 million in 2005.

The focus here is on two subsidiaries that are engaged in the production of men's shirts and men's trousers. Firm X and Firm Y were established in 1996 in an economic development zone, 40 km from Beijing and 60 km from Tianjin, one of the busiest ports in northern China. Firm X is a Sino-Japanese joint venture that currently has about 1,000 employees, 22 production lines and 4 workshops (1 cutting, 2 tailoring, and 1 dyeing and finishing). The fixed assets exceed yuan renminbi 22 million (US\$ 3 million), and the majority of the machines have been imported from Japanese textile equipment manufacturers Brother and Juki. The products of Firm Y include jackets, trousers, suits and skirts, with a total annual output of about 1.6 million pieces. Firm X enjoys customer design capacities and its products fulfill the nation's first-class quality ranking for garment exports. Firm X's international partners include GAP, Columbia and Liz Claiborne.

Firm Y is a Sino-United States joint venture that currently has about 660 staff members and 5 workshops (1 cutting and 4 tailoring), 17 production lines (9 for shirts, 4 for fashion and 4 for other garment lines). Most of the production equipment was imported from Japan and its products include shirts, blouses, and fashion and other garments. The company's annual output is about 1.6 million pieces, which are mainly exported to Japan, the United States, Germany and Australia. Firm Y received ISO9002 certification in 2000.

## **3. Additional interviews**

Mr. J, who is from Hong Kong, China, has factories in Guangdong province, China. He was involved in the production of men's shirt and trousers seven years ago but decided to move on to higher value-added products. Currently, Mr. J focuses on the design and production of wedding gowns for export.

Mr. U is a German who owns a manufacturing plant in Zhejiang province, China. He also has a showroom in Shanghai with headquarters located in Macau, China. Mr. U has been involved in the garment industry for more than 30 years, building up his current business from scratch. He also engages in consulting for foreign enterprises dealing with textiles and garments in China.

Mr. C is a Malaysian who has lived in Indonesia for the past 30 years. He specializes in the garment trade although he does not own any plants. He acts as an intermediary between clients in the United States and the European Union, and producers in Indonesia. As such, Mr. C is well versed in the issues considered in this project.



## D. Findings

### 1. Cost of production

Surprisingly, there appears to be no difference in direct labour costs between the manufacturer in Beijing and the one in Jakarta. Both reported that the direct labour cost was US\$ 0.90 per shirt and US\$ 1.10 per pair of trousers. There is also no significant difference between the average monthly salaries of production workers and supervisors in the two locations. On average, production workers earn between US\$ 120-US\$ 130 per month, while supervisors earn about US\$ 200 per month. However, there appears to be a difference in productivity in shirt making. In Beijing, the productivity is 14.54 shirts per worker, while in Jakarta it is 11.90. This may be due to higher capital intensity as the Beijing manufacturer reported 45 machines per production line compared to 34 in Jakarta. There does not appear to be a significant difference in productivity in trouser making, i.e., 8.57 pairs of trousers per worker in Beijing compared with 8.70 in Jakarta, although the number of machines per line in Jakarta is greater.

It is also interesting to note that the cost of raw materials in the form of fabric and accessories shows an insignificant difference between the two locations. For a standard specification of 133 x 72/40 x 40 at 48"/50" width (used for shirt production), the cost in both countries was reported to be US\$ 1.32 – US\$ 1.35 per yard. For trouser production, fabric of 120 x 80/32 x 32, width 48"/50" costs between US\$ 1.53 and US\$ 1.55 per yard. Accessory (buttons, zippers etc.) costs range from 50 cents for shirts to 80 cents for trousers in both countries. The Chinese manufacturer sources most of the required fabric from within China but about 10 per cent is sourced from overseas. In particular, more fancy fabric (for other items such as blouses etc.) is imported from the Republic of Korea and Taiwan Province of China. The Indonesian manufacturer sources 90 per cent of his fabric for shirt production from foreign suppliers, i.e., China, the Republic of Korea and Taiwan Province of China (the ratio being 30 per cent, 30 per cent and 40 per cent, respectively). For trousers, 50 per cent of the fabrics are imported from China, while the remainder is from the Republic of Korea and Taiwan Province of China. There do not appear to be any issues in sourcing as the delivery lead-time in both countries ranges from 20-30 days for plain dyed fabric to 35-40 days for yarn-dyed fabric. The interesting point to note here is that despite sourcing the fabric from China, the Indonesian manufacturer is still able to obtain it at a price and a lead-time that is competitive to the Chinese producer.

Utility costs are more expensive in China than in Indonesia. For example, the cost of electricity in Beijing is US\$ 0.104 per kWh compared with US\$ 0.06 in Jakarta. The cost of rental is also far higher in Beijing. The cost of office space in Beijing is US\$ 172.41 per m<sup>2</sup> per year compared with only US\$ 18 in Jakarta. It was not possible to determine the cost of factory space as it is fully owned by the Beijing operator. The cost of capital is not relevant in these two cases because the Beijing operator has a small loan while in Indonesia garment manufacturers are not eligible for bank loans.<sup>2</sup>

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<sup>2</sup> As a result of the 1997 economic crisis in Asia, the Indonesian Central Bank blacklisted companies in the textile and garment industry as they had a high degree of non-performing loans. Ten years after the crisis, the industry continues to be penalized by the financial community.

Quotas can be a major cost to Chinese producers. In the case of the Beijing manufacturer, the government allocated quotas for shirts and trousers are quite small. For these government allocated quotas, the manufacturer needs to pay US\$ 0.80 per dozen shirts and US\$ 1.75 per dozen pairs of trousers. If quotas are purchased from the open market, the cost can go up to US\$ 4-US\$ 5 per dozen shirts and US\$ 10-US\$ 15 per dozen pairs of trousers. Hence, while the quotas can provide some protection for a manufacturer, they can also hamper production. The manufacturer insisted that the removal of the quota for the products in question in 2007 by the European Union and in 2008 by the United States could reduce the cost and provide more opportunities for China's garment manufacturers. Quota costs do not apply to the Indonesian manufacturer.

Neither manufacturer is required to pay import duties as these are paid by the buyers.<sup>3</sup> In the case of Indonesia, VAT of 10 per cent is imposed on fabrics bought from local sources. However, if the fabric is used for export purposes, a 60 per cent rebate is offered, although this may involve a six-month waiting period. In the case of imported fabrics, a 2.5 per cent duty is imposed. In China, VAT is imposed on all materials purchased locally. However, if the materials are used for export purposes, an 11 per cent refund is granted for garments.<sup>4</sup> It should be noted that this rebate has gradually been reduced by the Chinese authorities.

## 2. Issues in production

The lead-time for production is quite similar for both locations. Both manufacturers reported similar periods, i.e., 30 days. However, the rejection rate experienced by the Chinese producer was far higher than the Indonesian manufacturer (i.e., 5 per cent to 10 per cent in China compared with 2 per cent in Indonesia).

Perhaps the most important issue raised by both respondents was labour-related matters. The Chinese producer complained that there was an acute shortage of skilled labour, which increased his production costs. Increasingly, customers are moving their orders towards South-East Asian countries such as Viet Nam and Cambodia. On the other hand, the Indonesian producer lamented that the labour laws provided an advantage to workers. In 2007, for example, the minimum wage rate was increased from Rp 819 100 (about US\$ 89) to Rp 900 516 (about US\$ 99).<sup>5</sup> Compliance with the minimum wage law is mandatory not only because it is required by law, but also due to pressure by the customer for the producer to comply with WRAP. Under WRAP, wages, working hours, minimum working age, benefits, safety and health etc. are stated in detail. The Indonesian producer has the required WRAP certification, but the result is higher production costs. The tight labour law with regard to remuneration also does not allow the producer to switch to a piece rate system.

The labour issues in China must not be underestimated. It was reported by one of the additional interviewees that there was a tendency for management as well the workers to opt out of a legal contract so that welfare payments (which may be up to 25

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<sup>3</sup> The agreement with the buyer from the European Union and/or United States is on an FOB basis.

<sup>4</sup> For textile production, the rebate is lower at 9 per cent.

<sup>5</sup> As a comparison, in 2007 the minimum wage rate in Beijing is Y 730 (about US\$ 96) compared with Y 640 (about US\$ 84) in 2006.

per cent of total salaries) need not be paid to the Government.<sup>6</sup> A lower than actual number of workers are reported to the authorities, which results in a smaller amount of welfare contribution being paid by the producer while the workers get to keep a larger portion of their income. In such cases, the incentive to pay on a piece rate and/or lower than minimum wages is likely. In a competitive market like that for shirts/trousers, bad producers can drive out the good ones.

Interestingly, neither of the producers complained about custom procedures or illegally solicited payments, either in their operations or in the transportation of their output. This may be due to their factories being located in free trade or bonded zones. However, the Indonesian producer allocates 0.2 per cent of total sales for this purpose. The Chinese producer, being an SOE, need not deal with these issues. Similarly, sourcing for fabric and accessories was not considered an issue, at least in the production of shirts and trousers. However, this may emerge as a problem for more fancy garments, which require fabric that is more sophisticated.

Finally, both producers are focusing their efforts towards markets in the European Union, the United States and, to a certain extent, Japan. Regional agreements do not appear to have benefited either producer. The Indonesian manufacturer, despite having some business in the ASEAN region, was unaware of any regional efforts that contributed to his industry. The Beijing manufacturer had no comment on regional agreements affecting garments.

## **E. Discussion and conclusion**

Despite current belief that China has abundant cheap labour to offer in the low-end garment industry, the authors' research found no such evidence. There is no clear competitive advantage for China compared to its rivals in South-East Asia. In China, several factors may have contributed to the rising cost of labour. China continues to be the economic powerhouse in Asia, attracting investors from many types of industries. Local companies are also expanding in order to satisfy the insatiable appetite of Chinese consumers. Thus, the demand for labour is continuously increasing, particularly skilled labour or at least labour that is trainable. The low-end garment industry needs to compete with other industries in attracting talent, pushing up wage rates. In addition, the rising cost of living, as highlighted by the increasing inflation rate over the past few months, is forcing workers to demand higher wages. In other words, the cheap labour advantage in China is becoming a myth rather than a reality.

In order to remain competitive, Chinese manufacturers have two choices. First, they can move west towards the inland provinces, where cheap but unskilled labour may be still available. If it is critical that they remain in the coastal provinces for logistical reasons, shifting production operations to third- or fourth-tier cities within these provinces may be an option. However, accessibility to skilled labour in those smaller cities may still be an issue as the migration of workers to larger cities continues. However, such a move would provide some solace, at least in the short term. In fact, relocating to smaller cities is already a trend among some garment producers (CTEI, 2007). Second, Chinese producers may need to consider relocating to neighbouring South-East Asian

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<sup>6</sup> This may not be the case with the interviewed Chinese manufacturer as it is a state-owned enterprise.

countries such as Cambodia, the Lao People's Democratic Republic and Viet Nam in order to take advantage of relatively cheaper labour in those countries. There may be logistics issues in some of those countries, but the cost of losing foreign customers to other more competitive producers will be greater. More importantly, the findings of the present study show the need for Chinese producers to move towards higher-end garments. As emphasized by the consultants during this study, profit margins are higher for high-end garments such as sportswear and fashionable women's wear. However, this changeover would need a greater investment in improving the skills of the current labour force, establishing sources for more sophisticated fabric and securing orders for such items from clients.

Based on the price of fabrics paid by the two interviewed manufacturers, it is clear that China also does not have a true competitive advantage, either in cost or in availability of the raw materials. The Indonesian producer, although importing a large portion of his fabric, is able to secure a price similar to the Chinese producer. A reduction in the cost of imports due to lower transportation costs on the one hand, and tariff liberalization policies on the other, point to an advantage that China will continue to lose in the medium term. In fact, as Chinese producers move to higher-end garment items, more resources will be allocated to fabrics that are more sophisticated rather than those required for lower-end products. In the long term, China may have to turn to imports for low-end fabrics.

China's lack of a competitive advantage brings us to the issue of quotas. If the direct cost of production between the Chinese and the Indonesian producer is more or less the same, the price paid for the quota puts the Chinese producer at a clear disadvantage. The cost of quotas may be forcing Chinese producers to engage in illegal practices, e.g., transshipping through South-East Asian countries, or the exploitation of workers by providing a less than appropriate work environment. Since quotas are an added cost to Chinese producers, it is not surprising that the interviewed Chinese manufacturer reported a maximum profit margin of 8 per cent compared with the 10 per cent earned by his Indonesian counterpart. Considering the appreciation of the yuan renminbi since the middle of 2006 (it has reportedly appreciated about 10 per cent since China adjusted its exchange rate policies in July 2005<sup>7</sup>), it is obvious that Chinese producers at the low end of the garment industry are being squeezed out of their profits. Therefore, the exports of these low-end products by China should decline. As table 6 shows, after a sudden spurt of growth in 2005 due to a no-quota environment, the growth in exports of knitted and woven garments to the United States in 2005/06 was relatively lower. The growth in the export of shirts (knitted or crocheted) in 2005/06 was far higher than the sector average, i.e., 83.3 per cent compared with the average of 23.1 per cent. However, non-knitted shirts (HS6205) literally stagnated (-1.3 per cent) in 2006.

Why is there a difference between exports of knitted and non-knitted shirts to the United States? It is likely that more orders for non-knitted shirts are being directed to South-East Asia compared with orders for knitted shirts. The fabric for non-knitted shirts is less cumbersome, and the most important capital investment needed is sewing machines. On the other hand, for knitted shirts, producers require machines that can weave the yarn before cut, make and trim can take place. In other words, knitted shirt production is relatively more capital- and skill-intensive. It is therefore quite likely that, in the medium term, more non-knitted shirt production will be moved out of China.

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<sup>7</sup> *Financial Times*, 9 October 2007.

**Table 6. Exports of shirts by China to the United States**

(Unit: US\$)

HS Code	Commodity	2004	2005	2006	Per cent increase, 2004-2005	Per cent increase, 2005-2006
61	Articles of apparel and clothing accessories, knitted or crocheted	2 408 735 508	5 118 797 183	6 302 958 662	112.5	23.1
62	Articles of apparel and clothing accessories, not knitted or crocheted	3 475 712 769	6 603 794 883	7 884 399 395	90.0	19.4
6105	Men's or boys' shirts, knitted or crocheted	21 267 404	50 873 669	93 242 756	139.2	83.3
6205	Men's or boys' shirts, not knitted or crocheted	303 470 457	439 235 784	433 343 964	44.7	-1.3

Source: United Nations Comtrade Database.

Based on the above findings and the export figures for 2005 and 2006, one of two scenarios is likely to occur in 2009. Here, emphasis is on the situation with regard to the United States, as it is the only nation to impose a substantial quota on China.

In scenario one, the status quo is maintained, i.e., no major increases in exports of low-end garments to the United States. The reason is the realization by American buyers that China has lost its competitive advantage to other producers in the region. Orders that were meant for China gradually move towards other countries such as Cambodia, Indonesia, the Lao People's Democratic Republic and Viet Nam. Thus, in scenario one, the removal of quotas would have minimal effect on imports of low-end garments by the United States.

Scenario two assumes that United States buyers are unaware of China's declining competitive advantage in these low-end products. If such is the case, the removal of quotas would result in an increase in orders from the United States buyers, perhaps diverting the orders from other developing countries such as Mexico or Turkey. On the other side of the Pacific Ocean, Chinese producers may not be willing to reject these orders despite a higher cost of production. The Chinese may be forced to move their operations inland or to outsource the labour-intensive production to lower cost locations in South-East Asia. In such a scenario, whether exports increase would depend on the location to which production would be shifted.

Scenario two is probably the more likely outcome. If that is indeed the case, the Government of China will need to address the issue, as it may invite further retaliation from the Government of the United States on the one hand, and a misallocation of Chinese resources on the other. As mentioned above, the future of China's garment industry is in the higher value-added categories. It is therefore advisable for the Government of China to steer the industry in that direction. The possible policy considerations include: (a) removing the tax rebate that is currently granted for low-end products; (b) providing incentives to move production to inland provinces and/or other low-cost locations such as South-East Asia; and (c) offering incentives to produce high value-added garments, including the creation of Chinese brands.

This chapter shows that China's labour cost advantage in low-end garment products, particularly men's shirts and trousers, is being lost to other producers in the region. The advantage of producing its own fabrics is also not strong enough to compete with producers of neighbouring countries. Increasing labour costs, coupled with an added quota cost and an appreciating currency, is forcing China's producers to move production to smaller cities or to outsource them completely to cheaper manufacturers in other countries. The future of China's garment industry lies in higher-end products that involve fabrics, designs and technology that are more sophisticated. The good news is that the industry is developed enough to meet these challenges. The modernization of its factories over the past two decades, and the clustering of firms in the textile and garment industry through government-directed efforts, can sustain China's position as the "tailor to the world".

For garment producers in competing countries, particularly developing and emerging economies in South-East Asia, greater linkages with Chinese garment producers are critical. These linkages, for example by being part of China's supply chain, could open markets in the developed countries and, more importantly, the growing Chinese market.

A clear limitation in this research is the case study method used. A larger number of manufacturers would increase the credibility of the above findings. However, given limited resources, it is hoped that these findings will assist the protagonists in the garment industry.

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## V. INDIAN TEXTILE AND APPAREL SECTOR: AN ANALYSIS OF ASPECTS RELATED TO DOMESTIC SUPPLY AND DEMAND

By Badri Narayanan G.

### Introduction

The Indian textile<sup>1</sup> and apparel sectors<sup>2</sup> comprise the second largest employer after agriculture, with more than 33 million persons engaged in this industry. In 2004/05, it contributed 1 per cent to GDP, 15 per cent to the total exports and 8 per cent to the total manufacturing output of India (based on calculations from the *Annual Survey of Industries* and Directorate-General of Foreign Trade, India). By virtue of being among the earliest established industries in the country, and being a major sector responsible for rapid growth of the newly industrialized countries, in addition to the data given above, the textile industry plays a significant role in the Indian economy. This industry has a rich past in India, in addition to its dimensions in culture and heritage, so much so that any study of Indian history would be incomplete without a detailed treatment of the country's textile trade. Textile production has been an integral part of the lives of millions of poor people, including farmers, in India for centuries.<sup>3</sup> In addition, textile production has backward linkages with agriculture and allied activities, at least in the case of natural fibres.

A strong and diverse raw material base, cheap labour, an ever-growing domestic market and relatively better technologies<sup>4</sup> than some of the other developing countries are the key strengths of the Indian textile sector that have resulted in such a pronounced prominence of this industry. The development of a modern textile industry in India gained momentum after a similar trend in Britain, owing to the availability of indigenous cotton, cheap labour, access to British machinery and a well-developed mercantile tradition in India.

Briefly, some fundamental features of the Indian textile and clothing industry are:

- The co-existence of a broad spectrum of production techniques;
- A distinct trend towards decentralized manufacturing in the informal sector;
- Sustained, albeit a considerably reduced predominance of cotton as the raw material;

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<sup>1</sup> The textile sector includes spinning that involves producing yarn from fibres, weaving that involves manufacturing fabric from that yarn, and processing that involves chemical treatment and colouration of yarns and fabrics for durability as well as aesthetics.

<sup>2</sup> The apparel sector includes the processes that result in the manufacture of readymade garments from fabrics.

<sup>3</sup> A comprehensive study of Indian textile history is given in Roy, 1996.

<sup>4</sup> For example, Lakshmi Machine Works, India, is one of the largest textile machinery manufacturers in the world. The presence of companies such as these has ensured that many advanced technologies are accessible to Indian industry.

- A huge ailing public sector;
- A recent trend among manufacturers of adopting e modern techniques; and
- The existence of a number of regulations and a preferential tariff structure (favouring natural fibres and conventional means of production).<sup>5</sup>

Despite being among the world leaders in textile production in 1950 and the fact that India has a self-reliant value chain of textiles, the country had been steadily losing ground in the world textile market, together with a loss of importance in industrialization at home. The decline of the Indian textile industry is very conspicuous relative to the country's other industries as well as the textile industries of other countries in the developing world, as is evident from the steep fall in the share of Indian textiles in the international market and in total Indian exports.

In the 1990s, the Indian textile industry faced a severe recession, both in terms of employment as well as in the number of operational mills/factories, which continued during the mid-1980s and 1991 despite fundamental changes in the tariff structure among other policy aspects. Although symptoms of recovery have been of late, owing to the market expansion resulting from the phasing out of MFA quotas, there was an astonishing decline in export growth from more than 16 per cent in 2005/06 to 10.53 per cent in 2006/07 (Ministry of Textiles, 2007).

However, the objective of this chapter is not to examine the performance of the Indian textile and apparel sectors in international trade. Rather, it focuses on some of the major domestic issues that encompass supply and demand in this industry. With regard to the supply side, performance and employment in organized and unorganized segments are considered separately. The key aspects that are analysed are partial productivity measures, employment, capital and output. As for the demand-side, the focus is on the fiscal and tariff policies in the textile and apparel sectors and their implications for demand.

This chapter is divided into six sections, in addition to this introduction. Section A gives an account of performance of the organised textile sector in India. Section B analyses the performance of the unorganized textile sector. Consumption of textiles by Indians and the factors affecting it are analysed in Section C. In conclusion, Section D and elucidates some policy inferences of the analysis in this chapter.

### **A. Organized textile sector in India: Performance and employment**

During the past few decades, numerous textile mills have been declared ailing and have been closed. However, many of the mills under the National Textile Corporation continued to operate, despite losses, owing to the large number of employees involved. Even in the private sector mills, employment has been a major issue. Although the sector has largely recovered, its performance post-MFA has not been encouraging.

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<sup>5</sup> See Misra, 1993 and Sastry, 1984 for elaboration of these aspects.

A wide range of regulations in the textile industry involving bureaucratic difficulties in expansion and the highly distortional tariff structure were partly responsible for this steady recession. For example, hank yarn obligation<sup>6</sup> required the spinners to allocate a fixed part of their production to handloom weavers. This not only restricted the profits of spinners, but also raw material access and costs for weavers and others further up the value chain. The reservation of the garment sector<sup>7</sup> under the Small-Scale Industry Act had restricted large-scale investment in this sector, which led to huge losses in efficiency that could have been otherwise achieved by economies of scale.

In the informal or unorganized apparel sector, which is progressing well, the processes are not planned and systematic. The working conditions are not satisfactory as the labour regulations cannot be enforced and a hire-and-fire principle is in place. This is true even in a part of the organized sector, wherein the manufacturers recruit contract labourers in order to minimize the losses they face due to the inflexible labour regulations preventing them from firing their permanent employees even during recessions. In fact, some studies have observed a rapid growth of the informal sector in the textile industry, especially after the reforms of 1991.

Table 1 shows the trends in annual average growth rates of some major variables for the aggregate textile industry. Since it was based on the aggregated textile data, figures could be calculated for four decades with proper concordance of various Annual Survey of Industries reports. It can be seen that output, wages and fixed capital have been growing at an increasing rate from 1961/62 to 1999/2000, except for a small drop in the growth rate from 1991/92 to 1999/2000.<sup>8</sup> The trend in the employment growth rate is, however, not uniform. Apart for the period between 1971/72 and 1980/81, it has grown at a much lower rate than the other variables in most periods and, in fact, declined from 1981/82 to 1990/91.

Although employment grew on average after the reforms of 1991, its growth was nowhere comparable to the growth of the other variables, especially capital stock, which has grown at about 18 per cent annually.<sup>9</sup> This observation is even more precise if the 1980/81 to 1997/98 period alone is examined, as employment fell at approximately the same annual average rate at which output grew, despite a remarkable annual growth of capital of more than 8 per cent. It would thus appear that, overall, the textile industry is characterized by substitutability between capital and labour. Given the labour-intensive nature and unionized labour of the organised segment of this industry, entrepreneurs might have had capital to substitute the labour. Even then, the absolute fall of 5 per cent annually in employment while output increased by 5 per cent annually draws attention.

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<sup>6</sup> After coming into effect in 1974, it was fixed at 50 per cent of the total marketable yarn in 1986, reduced to 40 per cent and then to 20 per cent in 2003.

<sup>7</sup> This requirement was withdrawn with effect from 2 November 2000.

<sup>8</sup> This might be partly due to the omission of the cotton-ginning sector for the two years after 1997/98, as the National Industrial Classification-1998 classified this sector under agriculture while the pre-1997/98 data are based on National Industrial Classification-1987. The same argument holds for the other variables; therefore, the figures for the period between 1980/81 and 1997/98 have been highlighted.

<sup>9</sup> This is as expected, since the phasing out of MFA quotas was initiated during this period and firms were apparently preparing for the free trade regime by attempting to invest in both an enhancement of their quality and scale as well as to improve efficiency.

Another striking observation from table 1 is that the period of 2000/01 to 2004/05 saw the sharpest growth in organized sector employment. This is seen together with a decent growth in real wages and output. This rise in employment, despite the growth of the unorganized sector and the number of contract workers within the organized sector, has faced stiff cost competition mainly in the wake of the gradual phasing out of quotas during this period. The growth in capital has come down to below 3 per cent, which is another reason to worry since to face the competitive market in the free trade regime, huge investments are required.

Three measures of partial productivity have been analysed in table 2 – capital productivity, capital intensity and labour productivity. Capital productivity is the ratio of gross output to gross capital. This gives the amount of output produced from a unit of capital. Capital intensity is defined as the ratio of gross capital to total employment. This reflects the relative size of capital and labour in the industries. Labour productivity is the ratio of gross output to total employment, and measures the extent to which labour has been used for production.

Table 2, in terms of lakhs (1 lakh = 100,000) of rupees of gross value of output and gross invested capital per person engaged, makes it more explicit that the textile industry, on an average, has become much less labour-intensive than it was 30 years ago. A rise in the capital-labour ratio, despite a fall in capital productivity, appears to suggest the existence of mere substitution of labour by capital, at least until 1997/98. By

**Table 1. Average annual growth rates in the organised textile and apparel sector in India (1993/94 prices)**

Period	Output	Employment	Real Wages	Real fixed capital
1961/62 to 1970/71	5.034	0.496	2.487	3.645
1971/72 to 1980/81	6.668	3.295	2.882	4.643
1981/82 to 1990/91	8.174	-0.968	5.44	8.802
1991/92 to 1999/00	6.718	0.997	2.378	17.774
1980/81 to 1997/98	5.34	-5.17	5.35	8.11
2001/02 to 2004/05	8.90	4.79	5.18	2.73

Source: Author's calculations from *Annual Survey of Industries*.

**Table 2. Trends in some ratios of capital (K), output (Y) and employment (N)**

Year	Y/K	K/N	Y/N
1973/74	2.569	4.523	11.616
1980/81	3.657	4.364	15.958
1985/86	3.092	7.331	22.664
1990/91	3.614	10.332	37.336
1997/98	1.546	34.122	52.76
2001/02	1.403	3.969	6.443
2004/05	1.777	4.426	7.864

Source: Author's calculations from *Annual Survey of Industries*.

2001/02, capital productivity, capital intensity and labour productivity had fallen sharply. Even though there had been a slight increase in all these measures by 2004/05, this is a serious problem given the fact that the international market is becoming more and more competitive, requiring high productivity and capital intensity.

Capital productivity (Y/K) was quite stable from the 1970s until 2005, varying between 1.4 and 3.7. However, there are bulges in capital intensity (K/N) as well as labour productivity (Y/N). Strikingly huge increases for these values during 1985/86, 1990/91 and 1997/98 could possibly be a result of a rapid fall in employment, which is in the denominator for both these measures in this period, as can be inferred from table 1. The growth of employment by 2001/02 might have offset the unusually high rise in these ratios before, thus explaining the fall in these ratios to much lower values. However, a not-so-high growth of capital since 2001/02 led to increase in capital productivity by 2004/05, while an impressive output growth rate caused a rise in both capital and labour productivity.

In the recent years, most of the protection measures have been brought in as a part of the reforms. Table 3 shows effective rates of protection for different subsectors of the textile industry over the past few years. The measure used is based on Das (2003), who defined the effective rate of protection as a measure of the extent to which a sector is sheltered from foreign competition. Specifically, this is based on Corden's formula and is the percentage excess of domestic value-added, vis-à-vis world value-added, introduced because of tariff and other trade barriers. This measures the distortion introduced due to tariffs on the input prices as well as the final output prices, and it therefore measures protection of domestic factors of production. This measure of protection is used, because it not only captures the absolute level of the effective rate of protection of each sector, but also accounts for the intersectoral differences in protection mentioned above. It is evident from table 3 that protection has fallen in all subsectors, and that this reduction has been strikingly sharp in cotton khadi and handlooms. A fall in protection may have implications for employment to the extent that protected industries that tend to lose because of a fall in protection are employment-intensive.

**Table 3. Trends in effective protection rates for different subsectors in the Indian textile sector**

NIC-1987 codes	Description of sectors	1980-1985	1986-1990	1991-1995	1996-2000
230,231,235	Cotton ginning, spinning and weaving	109.77	125.38	68.38	42.93
262	Embroidery, ornamental trimming and <i>zari</i>	160.91	151.23	95.79	48.22
232,233	Cotton khadi and handlooms	109.36	126.85	70.95	0
234,236	Power looms and processing in mills	109.77	125.38	68.38	42.93
260,265,267	Hosiery, garments and other made-ups	138.33	149.89	98.45	54.25
263	Carpets and other furnishings	102.52	91.8	63.3	44.66
268,269	Waterproof and other specialty textiles	160.91	151.23	95.79	48.2

Source: Das, 2003.

Note: NIC – National Industrial Classification.

It is useful to examine the employment trends in some subsectors, using past data, and to link them with some policy measures. Figure I shows that employment in handlooms and power looms was more or less stagnant from 1973/974 to 1997/98, except for the fact that the Handlooms (Reservation of Articles for Production) Act of 1985, which was enforced from 1986, caused a sharp increase in employment in that subsector in 1986/87. Subsequently, however, it fell rapidly owing to the liberalization that favoured the power looms and mill sector in the late 1980s, leading to the levels of employment recorded in the recent past.

Figure II shows that employment has been consistently falling in the cotton mill subsector, while it has been almost stagnant in wool, silk and other natural fibres. It has risen sharply in synthetics and made-up textiles, more so after the reforms of 1991. This roughly indicates that the highly regulated conventional cotton mill subsector has suffered the most among all the subsectors of cotton textiles in terms of employment, implying the existence of a negative relationship between labour regulations and employment. This also suggests a positive effect of liberalization, at least in some subsectors that come under the made-ups.

Figure III shows that employment has been rising as a whole in the textile processing sectors that are prime polluters in the industry. However, its fall in 1987/88 and 1995/996 in the overall cotton and synthetic processing sectors indicates the possible existence of a negative impact, at least in the short term, of the Environmental Pollution Act (1987) and the ban imposed in 1995 on certain dyes by some members of the European Union.

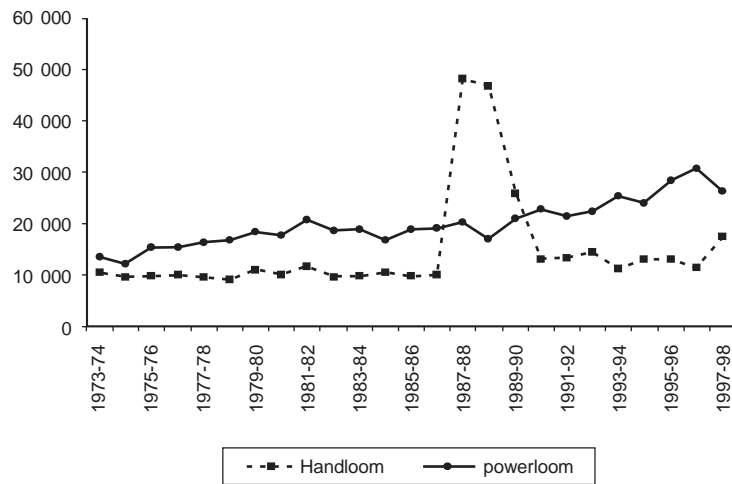
Figure IV strengthens the evidence for this statement since the fall in employment is even more conspicuous in the case of the wool and silk processing subsectors, which are more pollution-intensive in nature. Despite all these short-term trends, the long-term increasing trend is still preserved, suggesting that the rise in employment that might be gained by compliance with these regulations may have played a role in increasing employment. This fact is also confirmed by a rigorous econometric exercise based on a comprehensive theoretical framework by Narayanan (2007 and 2005b).

Table 4 shows that the number of factories has increased in the textile and the apparel sectors, implying a spectacular rise in fixed capital, number of workers, total persons engaged, total emoluments and gross output in the apparel sector. The growth in most of the variables has not been so high in the textile sector. However, the growth in the number of factories in the apparel sector has been less than half that in the textile sector, highlighting the massive consolidation and scaling up that has been taking place among apparel manufacturing enterprises. In part, this could be attributed to the fact that the garment sector was de-reserved from the small-scale industries sector in 2000 as well as the resultant mergers of smaller fragments after de-reservation, causing an actual reduction in the number of factories, which could have been outweighed by the number of new factories established.<sup>10</sup> Thus, the organized apparel sector appears to be getting more in tune with the free-trade regime than the organized textile sector, in terms of scaling up even though the latter has always been a large-scale sector compared with the former.

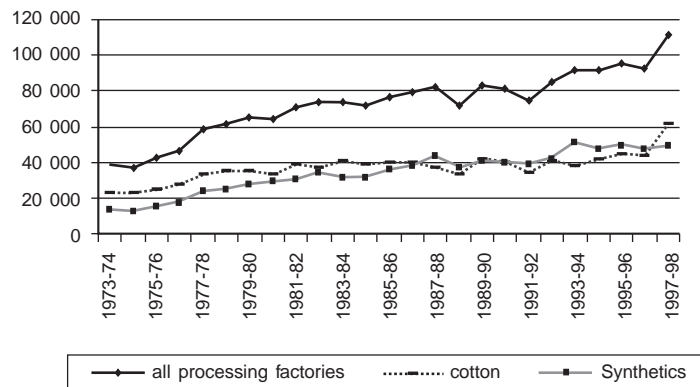
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<sup>10</sup> An investment of up to Rs 3 crore (1 crore = 10 million) in plant and machinery and an FDI cap of 25 per cent is permitted, subject to an export obligation of 50 per cent of total garment production, even before de-reservation.

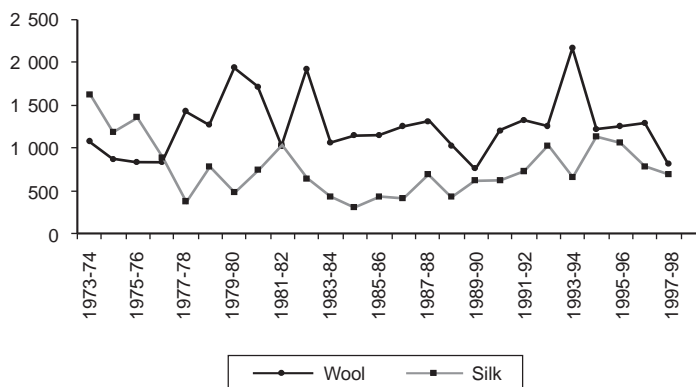
**Figure I. Employment trends in non-mill textile sector**



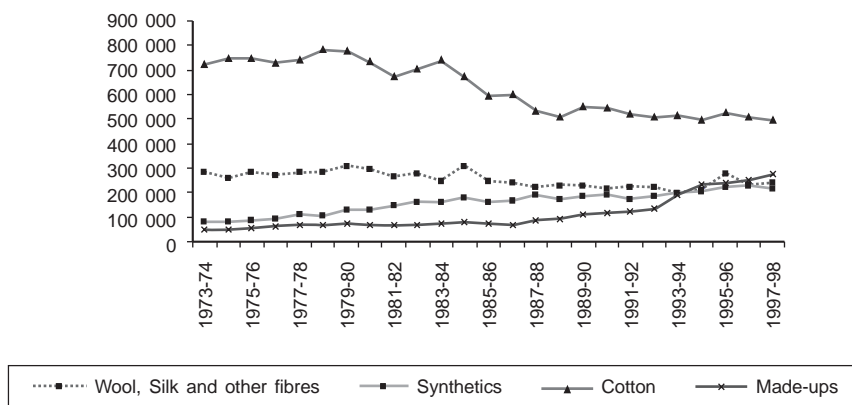
**Figure II. Employment trends in different subsectors of the textile wet processing sector**



**Figure III. Employment trends in textile wet processing sector**



**Figure IV. Employment trends in subsectors of the textile sector**



Source: Author's calculations from *Annual Survey of Industries*.

Note: Post-1997/98 data exist in NIC-98 classification, which does not allow us to look at the sectors in this scheme of disaggregation, done using NIC-87. Therefore, this analysis stops with 1997/98.



Table 4. Salient features of the organised textile and apparel sector in India: Recent trends

Year	Sector	Factories	Fixed capital (Rp lakhs)	Workers	Total persons engaged	Wages to workers (Rp lakhs)	Total emoluments (Rp lakhs)	Gross output (Rp lakhs)
2001/02	Textiles	12 557	3 931 489	1 004 848	1 182 124	445 017	602 216	8 202 046
2001/02	Apparel	3 283	310 821	272 524	317 089	86 647	127 917	1 456 746
2001/02	Total	15 840	4 242 310	1 277 372	1 499 213	531 664	730 133	9 658 792
2004/05	Textiles	13 521	4 629 094	1 076 480	1 264 427	480 456	714 951	11 108 327
2004/05	Apparel	3 397	470 132	387 606	450 175	139 024	222 732	2 374 789
2004/05	Total	16 918	5 099 226	1 464 086	1 714 602	619 480	937 683	13 483 116
<b>Average annual growth rates</b>								
2001-2005	Textiles	2.559	5.915	2.376	2.321	2.655	6.240	11.811
2001-2005	Apparel	1.157	17.085	14.076	13.990	20.150	24.707	21.007
2001-2005	Total	2.269	6.733	4.872	4.789	5.506	9.475	13.198

Source: Author's calculations from *Annual Survey of Industries* (2001/02 and 2002/03).

A higher growth rate in the number of workers than in total employment, coupled with conspicuously higher growth rates in total emoluments than in wages, indicate that despite an increased demand for production workers pay increases are becoming higher for supervisory and managerial staff, i.e., more skilled employees.

However, a word of caution is needed while mentioning employment in organised textile sector. Given the high labour costs and rigidities in the labour market, coupled with the ailing factories, employers have been subcontracting employees from the unorganized sector, thereby reducing employment in the organized sector. This, in addition to showing up as a decline in employment, is not a healthy trend as far as the welfare of employees is concerned, as they are not protected by any legislation given their unorganized nature. This needs to be taken care of by the policy makers, possibly by ensuring income security for the workers coupled with some labour flexibility for the employers, so that they are discouraged from subcontracting.

Having analysed the employment trends in India's organized textile sector, it is essential to link these observations with a perspective of development. The apparel sector has performed quite well in terms of employment in recent years, showing a recovery from the earlier decline; however, the same is not fully true in the case of the textile sector. This appears to be a good indication of the country's development in general, given the immense contribution of the textile sector to the economy. The story of employment and the performance of textile industry would not be complete, however, without a comprehensive examination of the trends in the unorganized textile sector. Therefore, section B analyses the performance, in terms of partial productivity trends as well as several other factors.

#### B. Performance of India's unorganized textile sector

In India, the unorganized manufacturing sector is defined as a collection of those manufacturing units:

- (a) Whose activities do not come under any statutory Act or legal provision; and/or which do not maintain any regular accounts; or
- (b) That are not registered under Sections 2m(i)<sup>11</sup> and 2m(ii)<sup>12</sup> of the Factories Act, 1948; and
- (c) That are registered under Section 85<sup>13</sup> of the Factories Act, 1948.

As table 5 reveals, the unorganized manufacturing sector contributes 28 per cent of the gross value added and 73 per cent of employment to total manufacturing including the organized sector, thus playing a vital role in the Indian economy.

As Table 5 illustrates, the unorganized textile and apparel sector comprises 31 per cent of gross value added and 79 per cent of employment in the entire textile and apparel sector in India. In fact, the unorganized apparel sector, which contributes about

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<sup>11</sup> Factories using power and employing 10 or more workers on any working day.

<sup>12</sup> Factories not using power and employing 20 or more workers on any working day.

<sup>13</sup> Factories that have less than 10/20 workers with or without power, and specially notified by the State Government.

**Table 5. Shares of various subsectors in different sectors for 2000/01  
(current prices)**

Subsector	Sector	Per cent share in gross value added	Per cent share in employment
Unorganized manufacturing	Total manufacturing	28	73
Unorganized textiles	Total textiles	18	74
Unorganized apparel	Total apparel	59	89
Unorganized textiles and apparel	Total textiles and apparel	31	79
Unorganized textiles and apparel	Unorganized manufacturing	29	31

Source: Author's calculations from *Annual Survey of Industries* and National Sample Survey Organisation data for 2000/01.

59 per cent to gross value added and 89 per cent to employment in the apparel sector in India is predominantly unorganized. Thus, any study of Indian textile industry cannot claim completeness unless it considers the unorganized sector in its analysis.

Misra (1993) noted that the unorganized segment of India's textile sector comprises handlooms, power looms, small power-processors and traditional hand-processors in addition to the numerous small-scale garment firms in the woven as well as hosiery subsectors. Power looms either operate on an independent basis or serve a master-weaver system, in which they just process the orders from the master-weaver providing the raw materials and charges based on the quantity of cloth produced. They acquire loans from non-bank sources, while handlooms in rural areas rely on non-institutional sources such as village moneylenders, unlike the organized weaving mills, at a higher rate of interest and from undeclared, untaxed and often illegal income.

In the urban areas, where this sector is dominant, labour is mostly drawn from migration from the rural areas, is non-unionized and is thus obtained at market-determined wage rates that are much lower than in the organized sector. These factors, in addition to the exemption of grey fabric from excise duty and sales taxes, and long working hours, provide a competitive advantage for the unorganized power loom subsector over the organized mill subsector. In fact, the rapid growth of the power loom sector after the deregulatory measures were introduced in 1985 could be attributed to its unorganized labour market, well-developed input markets, ease of entry and flexible specialization.

Although there are some large handloom production centres in urban areas, a major part of this subsector is small-scale, often as an ancillary activity to agriculture in rural areas. Many of the Indian handlooms are even non-commercial, such as those in the north-east, which produce for local or domestic consumption. There are small-scale power-processors as well as hand-processors using traditional techniques in India. The fact that the cost of raw material, cotton, is around one-fourth of the total value, and that the three stages of spinning, grey weaving and processing each progressively add one-fourth of the final value, clearly illustrates the importance of processing and weaving in the cotton textile value chain.

Further down the value chain, most of the knitted garment manufacturers are in the unorganized sector. For example, many firms in Tiruppur, an industrial town in Tamil Nadu, are either unorganized or depend heavily on subcontracting to firms in unorganized sector. Most of these firms are export-oriented and are seasonal/casual in operation, depending on orders from the foreign buyers. These firms are usually specialized<sup>14</sup> and small, and hence complete their job orders<sup>15</sup> with the help of numerous suppliers. Even some of the woven garment manufacturers, such as a few in Mumbai, Gurgaon, Chennai and Bangalore, are unorganized.

It is worth mentioning that the aforementioned characteristics are more or less typical for the cotton sector. However, the features of the other sectors such as wool, silk and synthetics, which involve similar processes, remain the same. The jute sector, which is concentrated in rural and urban areas of West Bengal as well as a few other States, has gone through major transformation from prosperity during pre-independence to difficult times in recent years. The coir sector is a major cottage industry in many rural areas in Tamil Nadu and Kerala. Other miscellaneous sectors include furnishings, manufacturing textiles for industrial purposes such as nylon tyre cords, metallised yarns and rubber thread or cord covered with textile material, specialty textiles such as tapes, cords and nets, fancy textiles such as embroidery, zari work, and wadded textiles.

As MFA quotas are being phased out, Indian textile sector is facing both opportunities and threats. While the organized segment of the sector appears poised for a boom, due to its relatively better economies of scale, the large unorganized sector is expected to suffer because of its lack of competitiveness and technical efficiency among other related factors such as insufficient scales of operation, which limits the level of efficiency and competitiveness that these firms can achieve.

Furthermore, de-reservation of the garment sector under the small-scale industries sector in 2000 is likely to have adverse effects on the unorganized sector, as the enterprises in this sector now face stiff competition from big players entering the market with this development in policy. In fact, this is already threatening the export sector, as the upper limit of investment was previously higher, as footnoted elsewhere in this chapter. Given the huge contribution of the unorganized segment to the textile sector, this is certainly a serious issue for the sector as a whole. On the other hand, small firms are becoming competitive after the recent trade reforms, as decentralised production does have some strengths in terms of costs. In addition, mergers of smaller firms into bigger ones could offer a solution in the face of competition from big players. Combined effluent treatment plants established in clusters of small textile dyeing units, in places such as Tiruppur, are examples of how small firms can join hands in eliminating their disadvantage resulting from the lack of economies of scale.

Given the heterogeneity of the unorganized textile segment coupled with the potential strengths and drawbacks, as explained above, it is imperative that the productivity trends in this sector are examined in those recent years for which detailed data are available.

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<sup>14</sup> A handful of firms carry out all the activities involved in the textile value chain.

<sup>15</sup> Most firms are order-based, although there are few that also market their own products.

This analysis uses the aggregate summary results of fortieth, forty-fifth, fifty-first and fifty-sixth rounds on unorganized manufacturing of the National Sample Survey Organisation (NSSO), (1989, 1994, 1998 and 2002). The different types of enterprises covered in this study are: (a) own account manufacturing enterprises (OAMEs) consisting of no employees other than the working owner; (b) non-directory manufacturing establishments (NDMEs) employing less than six persons other than a working owner; and (c) directory manufacturing establishments (DMEs) employing more than six persons other than a working owner.

Based on this data,<sup>16</sup> the average annual growth rates in employment, fixed assets, wages and output are analysed here (see table 6). While employment and wages fell, on average, from 1984 to 1990, they increased in the early 1990s and their growth was much higher in the late 1990s. This was despite a fall in fixed assets and output throughout this period, although the decline was not as high in 1990s as it was in 1980s. The interesting observation herein is that this trend is exactly the reverse of what has happened in the organized sector – a decline in employment despite a rise in capital and output.

**Table 6. Annual average growth rates in the unorganized textile sector (based on 1993/94 prices)**

Period	Employment	Fixed assets	Wages	Output
1984-1990	-11.803	-24.19	-8.787	-24.512
1989-1995	2.724	-8.412	9.174	-3.276
1994-2001	6.781	-9.123	10.946	-7.251

*Source:* Author's calculations based on National Sample Survey Organisation data (1989, 1994, 1998 and 2002)

Partial productivity measures should be analysed in order to obtain an overview of the performance of the unorganized textile sector. Three of the measures are analysed here: (a) capital productivity (no units); (b) labour productivity; and (c) capital intensity (in rupees per employee). In large-scale or capital-intensive industries, capital productivity can be expected to be much lower than unity, as output produced will require capital much larger than the value of output, owing to the capital-intensive nature of production. However, as the unorganized sector is not very likely to include such enterprises, this ratio may be even greater than one. This indicates the extent to which capital has been used for production.

To facilitate inter-temporal comparability, the measures were expressed in constant prices (base year: 1981/82) by deflating the fixed assets using WPI for textile machinery and gross output using WPI for the respective products, i.e., textiles and apparel.

<sup>16</sup> The demerits of National Sample Survey Organisation data on the unorganized manufacturing segment are the possibility of unrepresentative sampling, response errors, inadequate sample sizes and the absence of sampling error estimates. Owing to the absence of any better source of data for the unorganized textile sector, these data were used for this analysis while acknowledging these limitations.

Tables 7 and 8 show the trends and growth rates, respectively, for capital intensity, capital productivity and labour productivity across different enterprises and areas in the two subsectors of the textile sector, i.e., textile manufacture (NIC-98 code: 17) and apparel manufacture (NIC-98 code: 18).

**Table 7. Trends in partial productivity measures in the unorganized textile sector in India**

Year	Subsector	Sample	Enterprise type	Capital productivity	Capital intensity	Labour productivity
1984/85	Textiles	Rural	OAME	0.902	2 016.479	1 819.410
	Apparel	Rural	OAME	0.251	8 600.825	2 154.820
	Textiles	Urban	OAME	0.687	3 679.076	2 527.268
	Apparel	Urban	OAME	0.108	39 475.000	4 281.939
	Textiles	Rural	NDME	0.863	5 204.038	4 488.943
	Apparel	Rural	NDME	0.884	4 554.780	4 026.569
	Textiles	Urban	NDME	3.263	3 648.323	11 903.930
	Apparel	Urban	NDME	0.695	9 940.026	6 906.713
1989/90	Textiles	Rural	OAME	1.021	1 742.425	1 778.319
	Apparel	Rural	OAME	1.253	1 879.168	2 354.176
	Textiles	Rural	NDME	1.740	2 435.485	4 238.551
	Apparel	Rural	NDME	1.757	3 445.447	6 054.648
	Textiles	Urban	OAME	0.713	4 247.893	3 030.697
	Apparel	Urban	OAME	1.069	4 832.785	5 165.134
	Textiles	Urban	NDME	1.871	10 575.990	19 787.060
	Apparel	Urban	NDME	1.303	12 223.040	15 922.370
1994/95	Textiles	Rural	OAME	1.143	2 033.080	2 323.994
	Apparel	Rural	OAME	1.166	1 596.906	1 862.392
	Textiles	Urban	OAME	0.836	4 524.921	3 782.379
	Apparel	Urban	OAME	0.889	5 100.408	4 532.575
	Textiles	Rural	NDME	1.279	4 335.058	5 542.978
	Apparel	Rural	NDME	2.310	1 965.746	4 541.748
	Textiles	Urban	NDME	1.251	11 294.630	14 133.050
	Apparel	Urban	NDME	0.493	24 059.050	11 871.760
	Textiles	Rural	DME	1.578	5 905.005	9 320.225
	Apparel	Rural	DME	2.244	3 438.526	7 717.756
	Textiles	Urban	DME	1.804	9 804.714	17 688.040
	Apparel	Urban	DME	2.800	6 893.022	19 301.480
	2000/01	Textiles	Rural	OAME	0.906	2 577.797
Apparel		Rural	OAME	0.612	4 986.596	3 050.152
Textiles		Rural	NDME	1.160	4 680.898	5 429.882
Apparel		Rural	NDME	0.794	6 554.459	5 202.371
Textiles		Rural	DME	1.575	6 661.292	10 490.510
Apparel		Rural	DME	1.201	5 341.884	6 418.246
Textiles		Urban	OAME	0.653	6 369.440	4 159.148
Apparel		Urban	OAME	0.430	10 000.640	4 296.527
Textiles		Urban	NDME	1.490	15 329.540	22 846.260
Apparel		Urban	NDME	0.539	15 875.740	8 554.678
Textiles		Urban	DME	1.452	16 719.660	24 275.790
Apparel		Urban	DME	1.049	16 444.340	17 243.160

Source: Author's calculations based on National Sample Survey Organisation data (1989, 1994, 1998 and 2002)

**Table 8. Growth trends in partial productivity measures in the unorganized textile sector of India**

Period	Subsector	Sample	Enterprise type	Capital productivity	Capital intensity	Labour productivity
1984/85	Textiles	Rural	OAME	2.623	-2.718	-0.452
to	Apparel	Rural	OAME	80.007	-15.63	1.85
1989/90	Textiles	Rural	NDME	20.351	-10.64	-1.116
	Apparel	Rural	NDME	19.756	-4.871	10.073
	Textiles	Urban	OAME	0.772	3.092	3.984
	Apparel	Urban	OAME	177.059	-17.551	4.125
	Textiles	Urban	NDME	-8.532	37.977	13.245
	Apparel	Urban	NDME	17.495	4.594	26.107
	Textiles	Rural	OAME	2.4	3.336	6.137
1989/90	Apparel	Rural	OAME	-1.381	-3.004	-4.178
to	Textiles	Urban	OAME	-4.358	-1.274	-5.354
1994/95	Apparel	Urban	OAME	-3.37	1.108	-2.449
	Textiles	Rural	NDME	-5.306	15.599	6.155
	Apparel	Rural	NDME	6.296	-8.589	-4.997
	Textiles	Urban	NDME	-6.624	1.359	-5.715
	Apparel	Urban	NDME	-12.424	19.367	-5.088
	Textiles	Rural	OAME	-4.14	5.359	0.11
	Apparel	Rural	OAME	-9.51	42.453	12.755
1994/95	Textiles	Urban	NDME	-1.856	1.596	-0.408
to	Apparel	Urban	NDME	-13.129	46.687	2.909
2000/01	Textiles	Rural	DME	-0.045	2.562	2.511
	Apparel	Rural	DME	-9.294	11.071	-3.368
	Textiles	Rural	OAME	-4.376	8.153	1.992
	Apparel	Rural	OAME	-10.331	19.215	-1.042
	Textiles	Rural	NDME	3.821	7.145	12.33
	Apparel	Rural	NDME	1.841	-6.803	-5.588
	Textiles	Urban	DME	-3.904	14.105	7.449
	Apparel	Urban	DME	-12.511	27.713	-2.133

Source: Author's calculations based on National Sample Survey Organisation data (1989, 1994, 1998 and 2002)

First, a comparison is made of the trends in these variables for each year across different enterprise types, areas and subsectors. Second, we look at the average annual growth rates in them during a few recent years. Third, overall inferences are derived from this analysis.

### 1. Capital productivity

In 1984/85, NDMEs were more capital-productive than OAMEs in almost all categories except the rural textile sector, where both were comparable. While the urban textile NDME subsector produces output that is more than thrice that of capital, output is as high as capital in most other subsectors except apparel OAMEs. In all cases except rural NDMEs,<sup>17</sup> the apparel subsector is less capital-productive than the textile

<sup>17</sup> In this case, both the textile and the apparel subsectors are equally capital-productive.

subsector. Rural textile NDMEs are the only exception for the observation that all categories in rural areas have been more capital-productive than those in urban areas.

In 1989/90, all categories except rural textile OAMEs recorded capital productivity measuring above unity, exhibiting higher levels compared to those in 1984/85, except urban textile NDMEs in which it was halved. Further, NDMEs were more capital-productive than OAME in all categories, thereby comprising the four best ones among them in terms of capital productivity. All categories in rural areas have been more capital-productive than those in urban areas, except textile NDMEs, as was the case in 1984/85. Further, in all categories except urban NDMEs, the apparel sector has been more capital-productive than the textile sector.

In 1994/95, DMEs were also including in the analysis, owing to the availability of their data from the same source (National Sample Survey Organisation, 1998). In that year, all categories of NDMEs, except for the urban apparel subsector, were more capital-productive than OAMEs, while those in the DME category, except the rural apparel sector, were better than those in the NDME category. Compared to 1989/90, capital productivity fell in all categories except rural apparel NDMEs. While urban textile NDMEs had been the most capital-productive of all categories until 1989/90, it was just an average category in these terms in 1994/95. Except in urban NDMEs, capital productivity was higher in the apparel subsector than in the textile subsector in all enterprise types and areas. Enterprises in urban areas had higher capital productivity than in rural areas only in the case of DMEs while the reverse holds true for other enterprise types.

In 2000/01, capital productivity declined markedly in all categories. All categories of DMEs, except urban textiles, were more capital-productive than were the other categories, while those in the OAME category were worse than in the other categories. One striking observation is that capital productivity in the apparel subsector was lower than that in the textile subsector for all enterprise types and areas. In all cases except textile NDMEs, enterprises in rural areas were more capital productive than those in urban areas.

As shown in table 7, the annual average growth rate of capital productivity from 1984/85 to 1989/90 was two-digit or even higher in all categories except textile OAMEs where it was less than 10 per cent, and urban textile NDMEs where it fell. From 1989/90 to 1994/95, the average annual rate of decline in all categories, except textile OAMEs and apparel NDMEs in the rural sample<sup>18</sup>, ranged from 1 per cent to 12 per cent. Between 1994/95 and 2000/01, enterprises became 0.05 per cent to 13 per cent less productive every year, on average, except in the case of urban NDMEs, where they became more productive at an average annual rate of 1.8 per cent to 3.8 per cent. These rates of decline were much higher in the apparel subsector than in the textile subsector. Even in urban NDMEs, the apparel subsector became more productive at a rate lower than that at which the textile subsector had become. A decline in capital productivity, wherever it occurred, was more rapid in urban enterprises than in rural enterprises.

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<sup>18</sup> Note that capital productivity grew in these categories during this period.



## 2. Capital intensity

In 1984/85, capital intensity varied between Rs 2,000 and Rs 10,000 per employee, with an outlier of more than Rs 39,000 for the urban apparel OAME subsector. Capital intensity was much higher in the apparel subsector than in the textile subsector, except in rural NDMEs, wherein it was the other way round. Except in textile NDMEs, the enterprises in urban areas were more capital-intensive than those in rural areas. With the exception of the rural textile subsector, NDMEs were less capital-intensive than OAMEs.

While these figures varied between Rs 1700 and Rs 12,000 in 1989/90, enterprises in the apparel subsector, urban areas and NDMEs were uniformly more capital-intensive than those in the textiles subsector, rural areas and OAMEs, respectively, with no exceptions. Except for the enterprises in urban textile OAMEs and urban NDMEs, capital intensity fell in all categories, the sharpest fall being more than eight times in the case of urban apparel OAMEs.

In 1994/95, capital intensity ranged from Rs. 2,000 to Rs. 24,000, and the textile subsector was more capital-intensive than the apparel subsector in the enterprises in rural areas and DMEs, although urban apparel NDMEs were the most capital-intensive among all categories. Urban enterprises and NDMEs were more capital-intensive than rural enterprises and OAMEs, respectively. While DMEs in rural areas were more capital-intensive than NDMEs in the same areas, DMEs in urban areas were less capital-intensive than NDMEs in those areas. Except for rural apparel NDMEs, capital-intensity fell in all categories in 1994/95, compared with 1989/90.

Unlike in 1994/95, urban DMEs were the most capital-intensive (approximately Rs 16,000, while the lowest was some Rs 2,600) category in 2000/01, pushing urban NDMEs into second place. The apparel subsector was more capital-intensive than the textile subsector in all categories except DMEs. OAMEs were less capital-intensive than NDMEs, which were less capital-intensive than DMEs in all categories except the rural apparel subsector, wherein DMEs were less capital-intensive than NDMEs. Further, it can be seen that enterprises in urban areas were much more capital-intensive than those in rural areas. Capital-intensity was much higher during 2000/01 than that during 1994/95 in all categories.

Except for urban NDMEs and textile urban OAMEs, enterprises in all categories became less capital-intensive, at annual rates of 3 per cent – 18 per cent from 1984/85 to 1989/90. However, the annual growth rate was as high as 38 per cent in textile urban NDMEs. This decline in capital intensity could not be offset by growth in a few categories from 1989/90 to 1994/95, because rapid growth occurred only in the categories that had, to begin with, grown in capital intensity since 1984/85. Where growth did occur in the other categories, it was not high relative to the rates of decline in the previous period.

Unlike the previous periods, capital-intensity grew quite rapidly in most categories from 1994/95 to 2000/01, with the annual average growth rate ranging from 2 per cent to 47 per cent, the only exception being urban apparel DMEs. One more noteworthy observation is that the apparel subsector became capital-intensive much faster than the textile subsector did, wherever it grew, which explains why the apparel subsector became more capital-intensive than the textile subsector in 2000/01, in contrast with 1994/95 figures. While the growth rates were much higher in the textile subsector in the urban sample than that in the rural sample, the reverse held for the apparel subsector, with the exception of DMEs. The other observations in growth rates may be made directly from table 7.

### **3. Labour productivity**

While the textile subsector was less labour-productive than the apparel subsector in OAMEs during 1984/85, the reverse held true for NDMEs. NDMEs were more labour-productive than OAMEs in all sectors and areas. Urban enterprises were more labour-productive than were those in rural areas. While rural textile OAMEs were the least labour-productive (Rs 1,800), urban textile NDMEs were the most labour-productive (approximately Rs 12,000).

Except for rural textile enterprises, labour productivity increased in all categories from 1984/85 to 1989/90. Urban enterprises and NDMEs were more labour-productive than rural enterprises and OAMEs, respectively, during 1989/90. The apparel subsector was more labour-productive than the textile subsector except in the case of urban NDMEs, where they were the most labour-productive (about Rs 19,800). Rural textile OAMEs was the least labour-productive at about Rs 1780 per person.

In 1994/95, except in urban OAMEs and DMEs, labour productivity, which varied from around Rs 1,800 to Rs 19,000, was less in the apparel subsector than in the textile subsector. Urban enterprises, DMEs and NDMEs were more labour-productive than rural enterprises, NDMEs and OAMEs, respectively.

During 2000/01, DMEs were more labour-productive than NDMEs, which in turn, were more labour-productive than OAMEs. With the exception of OAMEs, the apparel subsector was more labour-productive than the textile subsector. Urban enterprises were more labour-productive than rural ones. Labour productivity varied from Rs 2,300 to Rs 24,000 during this period.

From 1984/85 to 1989/90, labour productivity grew in all categories at an average annual rate ranging from 1.8 per cent to 26 per cent, except in the textile subsector in the rural sample, where it declined at relatively lower rates. In contrast, it declined in all categories except the rural textile subsector, where it grew at about 6 per cent per year from 1989/90 to 1994/95. This decline was slightly more pronounced in the apparel subsector than in the textile subsector.

From 1994/95 to 2000/01, labour productivity grew in the textile subsector in all categories except rural NDMEs, in which it declined at an annual rate of less than 1 per cent. In the rural areas, apparel subsector labour productivity grew at between 3 per cent and 13 per cent per year, except in DMEs, which saw a decline of around 3 per cent per year. Urban apparel enterprises became less labour-productive in all categories at between 1 per cent and 6 per cent per year.

### **4. Overall inferences on partial productivity measures**

With a few exceptions, NDMEs, rural enterprises and the textile subsector were more capital-productive than OAMEs, urban enterprises and the apparel subsector, respectively, in 1984/85. While capital productivity grew between 1984/85 and 1989/90 in most categories, the other observations are the same as for 1984/85, except that the apparel subsector was more capital-productive than was the textile subsector. From 1989/90 to 1994/95, capital productivity declined in almost all categories, with that of DMEs being the highest among all enterprise types. The observation that DMEs in urban areas were more capital-productive than were those in rural areas is the only other difference between the figures for 1994/95 vis-à-vis those for 1989/90. In 2000/01,

capital productivity declined conspicuously in all categories, more so in urban than in rural areas, explaining the fact that enterprises in rural areas were more capital-productive than were those in urban areas. One striking observation is the fall in capital productivity in the apparel subsector, both in absolute and relative terms, and hence the apparel subsector was less capital-productive in the apparel subsector than in the textile subsector.

In 1984/85, capital intensity was much higher in the apparel subsector, urban areas and NDMEs than in the textile subsector, rural areas and OAMEs, respectively, with few exceptions. The same is true for 1989/90 with no exceptions, although capital intensity fell sharply in most categories from 1984/85. Between 1989/90 and 1994/95, there was little, no or negative growth in capital intensity.

The textile subsector was more capital-intensive than the apparel subsector in rural DMEs. While rural DMEs were more capital intensive than rural NDMEs, urban DMEs were less capital-intensive than urban NDMEs in 1994/95. The other observations are identical to those in 1989/90. In 2000/01, the apparel subsector was more capital-intensive than the textile subsector in all categories except DMEs. Urban enterprises were much more capital-intensive than were rural ones. Capital intensity was much higher during 2000/01 than that during 1994/95 in all categories.

While the textile subsector was less labour-productive than the apparel subsector in OAMEs, the reverse held true for NDMEs during 1984/85, when urban enterprises and NDMEs were more labour-productive than were rural enterprises and OAMEs, respectively. This increased in most categories from 1984/85 to 1989/90. Except for the fact that the apparel subsector was more labour-productive than the textile subsector in most cases, the relative positions remained the same as in 1984/85. In 1994/95, labour productivity was lower in the apparel subsector than in the textile subsector in all categories except urban OAMEs and DMEs.

Urban enterprises, DMEs and NDMEs were more labour-productive than rural enterprises, NDMEs and OAMEs, respectively. While labour productivity grew in most of the textile subsector between 1994/95 and 2000/01, with the exception of OAMEs, the apparel subsector was more labour-productive than the textile subsector.

To highlight the findings of this section, two observations can be mentioned at this point. First, urban enterprises performed better than rural enterprises in most subsectors and measures in the unorganized textile subsector. This underscores the dominant problem of the rural-urban divide even in this section of the economy. Second, DMEs performed better than NDMEs, which in turn performed better than OAMEs in this sector. This supports the argument that smaller firms may not be in a position to perform better than larger ones, highlighting the need to encourage the relatively susceptible segments of the industry, in order to provide a level playing field. Having examined the organized and unorganized segments of the Indian textile sector, which form the sector's supply side, it is useful to look at some aspects of domestic demand for textiles and clothing. An attempt is made to do this in the next section.

### **C. Domestic consumption of textiles in India**

Household textile demand has an immense significance for the Indian economy. Given India's population, and more importantly its exploding growth rate, as a part of the subsistence trio (food, clothing and shelter) textiles are poised to be among the key

factors of demand. Tables 9 and 10 illustrate the fact that the share of clothing in the total expenditure of an average Indian household has been 6 per cent to 7 per cent in recent years.

**Table 9. Trends in per capita consumption expenditures and shares on clothing in rural India (current prices)**

Per capita expenditure	1989/90	1993/94	1999/2000	2000/01	2001/02	2002/03	2003/04	2004/05
Clothing (Rs)	10.52	21.20	33.28	35.94	35.33	37.68	38.58	39.80
Non-food	57.28	108.30	197.36	216.34	221.92	239.21	255.68	260.1
Total (Rs)	158.10	286.10	486.16	494.90	498.27	531.49	555.55	616.57
Clothing's share in non-food	0.18	0.20	0.17	0.17	0.16	0.16	0.15	0.15
Clothing's share total	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07

Source: Author's calculations from the National Sample Survey Organisation, 2005.

**Table 10. Trends in per capita consumption expenditures and share of clothing in urban India (current prices)**

Per capita expenditure	1989/90	1993/94	1999/2000	2000/01	2001/02	2002/03	2003/04	2004/05
Clothing (Rs)	15.00	32.70	51.76	58.16	57.81	60.83	60.08	62.48
Non-food	110.18	214.00	444.08	514.01	530.48	582.18	593.56	619.74
Total (Rs)	249.92	464.30	854.92	914.57	932.79	1 011.97	1 022.68	1 104.84
Clothing's share in non-food	0.14	0.15	0.12	0.11	0.11	0.10	0.10	0.10
Clothing's share total	0.06	0.07	0.06	0.06	0.06	0.06	0.06	0.06

Source: Author's calculations from the National Sample Survey Organisation, 2005.

The share of textiles and clothing in total expenditure could be an indicator of development for countries, because the more the households in a country spend for clothing, the more developed and comfortable they are with their other basic necessities, especially food. Thus, there appears to be some scope for increasing the per capita demand for clothing, which could show up as an increase in the share of clothing in total expenditure. In urban households, the share of clothing in non-food expenditures has been much lower than in rural households. This is partly because the basket of non-food commodities (both goods and services) is bigger in urban areas, hence rendering the share of clothing relatively low. However, these shares have been slowly falling both in rural and in urban areas.

Further, the problem of various ailing textile mills in the past has been largely attributed to the lack of demand in India by several studies (see, for example, Goswami, 1985 and 1990; and Murty and Sukumari, 1991). Although most of the studies were

based on the data and scenario up until the late 1980s, a demand constraint could be expected to have remained persistent in the textile sector, at least until 2005, when the MFA quotas were phased out, leading to a boom in the external demand sector. Thus, demand for clothing appears to have two dimensions relevant to a country's development – its own intrinsic value as an indicator of development, and its implications for the supply-side and hence the employment aspects.

Table 11 shows that the aggregate household purchases of textiles have grown over recent years, although the per capita purchases either have been stagnant or have fallen, unlike exports, which have been increasing for decades despite the quota system. The domestic demand trends are not in line with the trends in domestic production, as illustrated by table 11. Hence, textiles in India clearly face a domestic demand constraint.

**Table 11. Indian textile and apparel subsectors – trends in growth of supply and demand**

Period	Aggregate household purchases	Per capita household purchases	Exports	Supply (production)
1975-1980	3.519	0.991	3.877	6.35
1980-1985	4.742	2.225	0.402	4.841
1986-1994	0.875	-1.08	14.478	10.518
1995-2000	3.026	1.129	19.045	5.033
2000-2005	4.001	2.028	10.205	8.9

*Source:* Author's calculations from different *Annual Survey of Industries yearbooks*, *Compendium of Textile Statistics*, Directorate-General of Foreign Trade and consumer's purchases in textiles.

The demand constraints are attributed to the excise structure that is highly biased towards cotton and other natural fibres as well as the textile commodities that are manufactured by relatively less efficient ways, such as without power and steam. Table 13 shows the excise structure over recent years for different textile fibres, while tables 14 and 15 show the same for different yarns and fabrics.

Before examining the figures given in tables 14 and 15, it is imperative to note a few facts. First, natural fibres, hank yarn (plain reel and cross reel up to 25s), all fabrics processed without the aid of power and steam, and products of factories owned by/registered to the National Handloom Development Corporation, State Government Handloom Development Corporations, and Khadi and Village Industries Commission pay no excise duty to begin with. Second, since 1995/96, a provision has been made in the budget to take a part of excise duty in lieu of sales tax for all fabrics; hence, the figures from 1995/96 are a bit higher than what they effectively are, compared with those for previous years. Third, handloom cotton fabrics and those processed by independent power processors approved by the Government pay an excise duty that is 40 per cent of that for the mill and power-loom subsector.

Woollen fabrics made of shoddy yarn have been exempted up to the value of Rs 60/m<sup>2</sup> until 1992/93 and Rs 100/m<sup>2</sup> since 1993/94. The hank yarn exemption was withdrawn from 2002/03, but the exemption for coarse hank yarns counts up to 2s (English

**Table 12. Trends in excise structure of various textile staple fibres in India, 1992-2005**

Year	Acrylic, viscose	Polyester	Nylon	Acetate	Poly-propylene
1992/93	15.6	13.65	59.15	15.6	17.87
1993/94	14.95	12.65	14.95	14.95	17.25
1994/95	23	23	23	23	23
1995/96	23	23	23	23	23
1996/97	23	23	23	23	23
1997/98	20.7	20.7	20.7	20.7	20.7
1998/99	20.7	20.7	20.7	20.7	20.7
1999/2000	18.4	18.4	18.4	18.4	18.4
2000/01	18.4	18.4	18.4	18.4	18.4
2001/02	18.4	18.4	18.4	18.4	18.4
2002/03	18.4	18.4	18.4	18.4	18.4
2003/04	18.4	18.4	18.4	18.4	18.4
2004/05	16.32	16.32	16.32	16.32	16.32

Source: *Compendium of Textile Statistics*, Office of the Textile Commissioner, Ministry of Textiles, Government of India, 1994-2005.

count, i.e., number of 840 yards of yarn in one pound). Since 2004/05, duties with centralized value added taxes for natural fibre yarns and all fabrics have been applied.

Considering the fact that the recent figures for excise duties consist of what was previously sales tax as well, it can be seen that there is a falling trend in almost all commodity groups. Another inference is that the excise structure is now much simpler than it was previously. For example, while it was different for each type of staple fibre, in recent years it has been the same for all synthetic stable fibres. Filament yarns in general, and polyester in particular, are the commodity groups for which the excise duties appear to be the highest.

For the purpose of simplicity, the excise structure of the intermediates involved in the production of synthetics is not shown. For most of them, it has remained static at around 15 per cent to 18 per cent for the past 10 years. Thus, it is very clear that the excise structure is still highly biased towards natural fibres, although this has been reduced to great extent. Further, less efficient ways of manufacturing, such as those that do not use power and steam, pay less excise duties, thus leading to higher relative marginal costs of production for the more efficient manufacturers. This type of differentiation is removed only in the case of woollen fabrics, as noted in table 14.

A recent exercise in demand estimation was undertaken by the author,<sup>19</sup> using a dynamic and almost ideal demand system, and was performed for a monthly household-level survey data on textile purchases from 1994 to 2003. The exercise shows that the cross-price elasticities among the 12 major commodity groups within textiles are negligible compared to own-price elasticities, which are very high for the synthetic and blended textiles and low for cotton textiles. These findings are in line with previous

<sup>19</sup> Details of this model are available on request from the author (see Narayanan, 2007).

**Table 13. Trends in excise structure of various textile yarns based on filaments and staple fibres in India, 1992-2005  
(percentage ad valorem)**

Year	Hank yarn	Cone yarn	Polyester viscose	Polyester cotton	Polyester wool	Polyester filament	Nylon filament	Viscose filament	Wool yarn
1992/93	0.39-2.60	0.35-9.75	15.6	7.8	15.6	80.6	25-71.5	5.2-19.5	0
1993/94	0.23-2.30	0.58-9.78	16.1	8.05	16.1	69	26.5-57.5	5.18-19.55	0
1994/95	3.45	5.75	23	23	23	69	23-34.5	11.5-17.25	11.5
1995/96	3.45	5.75	23	23	23	57.5	23-34.5	11.5-17.25	11.5
1996/97	3.45	5.75	23	23	23	46	23-34.5	11.5-23.0	11.5
1997/98	3.45	5.75	20.7	20.7	20.7	34.5	20.7-34.5	9.2-20.7	9.2
1998/99	3.45	5.75	20.7	20.7	20.7	34.5	20.7-34.5	9.2-20.7	9.2
1999/2000	0	9.2	18.4	18.4	18.4	34.5	27.6	18.4	9.2
2000/01	0	9.2	18.4	18.4	18.4	36.8	18.4	18.4	9.2
2001/02	0	9.2	18.4	18.4	18.4	36.8	18.4	18.4	18.4
2002/03	0-9.20	9.2	18.4	18.4	18.4	36.8	18.4	18.4	18.4
2003/04	0-9.20	9.2	13.8	13.8	13.8	27.6	13.8	13.8	13.8
2004/05	0-9.2	9.2	8.16	8.16	8.16	24.48	16.32	16.32	8.16

Source: Compendium of Textile Statistics, Office of the Textile Commissioner, Ministry of Textiles, Government of India, 1994-2005.

studies on textile demand, showing that not much has changed in the textile consumption pattern in India over the years. This is summarized in table 15, where own-price elasticities and expenditure elasticities are shown in bold font. It is evident that the cross-price elasticities are negligible compared with these figures. Further, own-price elasticities are strikingly higher in synthetics than in cotton and wool.

**Table 14. Trends in excise structure of various textile fabrics in India, 1992-2005**

Year	Cotton fabrics	Blended/ synthetic fabrics	Woollen fabrics <sup>a</sup>	Woollen fabrics <sup>b</sup>	Woollen fabrics <sup>c</sup>
1992/93	0.2-2.5+20% of value > Rs 40/m <sup>2</sup>	0.5-20	2.0-9.0	7.1-14.4	10.86-18.00
1993/94	0.2-2.5+20% of value > Rs 40/m <sup>2</sup>	0.5-20	2.0-9.4	7.95-15.50	10.75-18.80
1994/95	10	10-20	0-16.50	16.5	16.50-22.25
1995/96	5-10	10-20	22.25	22.25	22.25
1996/97	10-20	20	22.25	22.25	22.25
1997/98	10-20	20	22.25	22.25	22.25
1998/99	10-20	20	22.25	22.25	22.25
1999/2000	13-16	16	21	21	21
2000/01	16	16	21	21	21
2001/02	16	16	16	16	16
2002/03	12	12	12	12	12
2003/04	10	10	10	10	10
2004/05	4.08	8.16	8.16	8.16	8.16

*Source:* *Compendium of Textile Statistics*, Office of the Textile Commissioner, Ministry of Textiles, Government of India, 1994-2005.

*Notes:* The units are percentage ad valorem for all except woollen fabrics, for which the units are rupees per m<sup>2</sup>, unless otherwise mentioned.

<sup>a</sup> Manufactured by independent processors.

<sup>b</sup> Manufactured by decentralised sector and processed by mills.

<sup>c</sup> Manufactured and processed by composite mills.

All these observations taken together point towards two major facts. The first one is the biased nature of the excise structure that has kept not only synthetic/blended textiles more expensive than they should have been, but also has encouraged the less-efficient means of production, albeit for developmental purposes such as equity. Second is that a reduction of this bias by lowering the excise on synthetics/blended textiles as well as more efficient means of production, would not cause a fall in demand for conventional textiles, as the cross-price elasticities hardly play a role in the scene. Further, such a reduction would enhance the demand for all non-cotton commodity groups, without affecting the demand for cotton and other conventional commodity groups.

Given the above description, it is quite understandable that a cut in excise duties of synthetic and blended textiles will be beneficial to the Indian textile sector as a whole. While presenting the Union Budget for the year 2006/07, India's Finance Minister probably had these issues in mind while reducing the excise duty of man-made and blended fibres from 16 per cent to 8 per cent. This was, indeed, a welcome step. While this analysis has focused only on domestic demand, this also has implications for India's



Table 15. Elasticities of various textile commodity groups with regard to prices and textile expenditure

Elasticity of:	Acrylic	Viscose	Cotton	Cotton-viscose	Nylon	Polyester	Polyester-cotton	Silk	Polyester-viscose	Polyester-wool	Wool
Acrylic	<b>-0.851</b>	0.008	0.045	0.013	0.073	-0.070	-0.036	-0.001	-0.109	-0.033	-0.021
Viscose	0.010	<b>-0.920</b>	0.035	0.025	0.134	-0.056	0.046	-0.024	-0.031	-0.002	-0.027
Cotton	0.007	-0.020	<b>-0.667</b>	-0.024	-0.054	0.042	-0.323	0.002	0.034	0.036	0.021
Cotton-viscose	0.006	0.010	-0.010	<b>-0.876</b>	-0.099	-0.001	-0.017	-0.001	-0.001	0.003	-0.012
Nylon	0.012	0.023	-0.010	-0.037	<b>-1.334</b>	0.009	-0.036	0.009	0.046	0.036	-0.0003
Polyester	-0.061	-0.053	0.117	0.001	0.054	<b>-0.948</b>	0.188	-0.019	-0.043	-0.032	-0.055
Polyester-cotton	-0.022	0.055	-0.340	-0.023	-0.157	0.198	<b>-0.906</b>	0.015	-0.012	0.036	-0.026
Silk	-0.001	-0.067	0.149	0.005	0.158	-0.054	0.025	<b>-0.936</b>	0.011	-0.133	-0.089
Polyester-viscose	-0.043	-0.014	0.040	0.001	0.107	-0.020	-0.011	0.001	<b>-0.688</b>	-0.042	-0.040
Polyester-wool	-0.021	-0.004	0.044	0.004	0.126	-0.024	0.021	-0.033	-0.066	<b>-0.730</b>	-0.045
Wool	-0.035	-0.049	0.110	-0.045	-0.001	-0.109	-0.059	-0.057	-0.179	-0.126	<b>-0.713</b>
Textile Expenditure	<b>1.000</b>	<b>1.039</b>	<b>0.487</b>	<b>0.982</b>	<b>0.941</b>	<b>1.018</b>	<b>1.129</b>	<b>1.037</b>	<b>1.005</b>	<b>0.981</b>	<b>1.032</b>

Source: Author's calculations from household-level data from Textiles Committee (see Narayanan, 2007).

international competitiveness vis-à-vis other countries in the textile sector. With reduced protection, Indian industries are likely to become more competitive and some raw material inputs are likely to become cheaper due to lowered duties.

Thus, it may be said with a reasonable degree of confidence that the Indian textile sector is going to benefit immensely because of such steps as tariff and tax reduction. The major point emphasised in this section, but which is less obvious, is that a cut in duties will not affect the conventional textile sector, owing to the low cross-price elasticities between the textile commodity groups. This is not only essential for the well-being and better performance of the sectors, per se, but also the standards of living of the public, in terms of textile consumption. It should be highlighted that the consumption of textiles itself is as much a measure of development as is the consumption of food. Hence, enhancing textile consumption should be an inherent feature of developmental policies. In addition, enhanced textile demand would benefit the supply side, which is immensely significant for development of the economy in general.

#### **D. Conclusion**

With the objective of analysing the structure of India's textile sector, both from the supply and demand perspectives, this chapter has considered the performance and employment in the organized and unorganized subsectors, and the fiscal and tariff policies and their impacts on domestic consumption of textiles and clothing in India.

Examining the organized textile and apparel sector has shown that employment remained stagnant while capital and output were increasing until 2000/01, after which employment started to rise as well. The apparel subsector has expanded tremendously in terms of output, capital and employment, despite a much lower increase in the number of factories than in textile subsector, indicating a structural change in terms of huge investments and an increase in scales of operation since its de-reservation from the small-scale industry subsector in 2000. Better prospects of employment are possible in the apparel subsector, although it should be enhanced in the textile subsector as well, by promoting huge investments. Even in the unorganized subsector, smaller firms are worse off than the bigger ones, in terms of various productivity measures. Hence, even small firms could be encouraged to expand by investing more while preserving their merits in being small, especially flexibility and customized production possibilities.

Investment could be encouraged by better credit disbursement policies. In this connection, it should be noted that the credit disbursement through the Technology Upgrading Fund Scheme (TUFS), as a fraction of credits applied for, has been reasonable as shown in table 16.<sup>20</sup> A glance at the figures in table 16 suggests that the disbursement of credit has been fairly good, especially in the case of those agencies responsible for promoting SSIs (such as the Small Industries Development Bank of India), with an application-rejection rate of less than 2 per cent and credit disbursement rate of around 70 per cent. However, the figures are less impressive for the agencies that lend to all industries (such as the Industrial Credit and Investment Corporation of India, the Industrial Development Bank of India and the Export Import Bank). To the extent that SSIs are more dependent on the sources of credit such as TUFS than are the other industries, these figures show that credit disbursement is not a major issue. In fact, the same can be said for the other industries, although not to the

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<sup>20</sup> See Narayanan, 2005a for more details in this regard.

**Table 16. Credit applications that were received and disbursed under TUFs, 2004/05**

Nodal agencies	Credit applications received			Credits Disbursed			Number of applications rejected
	Number of applications	Project cost <sup>a</sup>	Amount of loan required <sup>a</sup>	Number of applications	Project cost <sup>a</sup>	Amount sanctioned <sup>a</sup>	
Agencies that lend to all industries	1 290	23 031.07	12 237.79	950 (73.64) <sup>b</sup>	14 224.00 (61.68) <sup>b</sup>	6 682.58 (55.00) <sup>b</sup>	118 (9.15) <sup>b</sup>
Agencies that lend only to SSI	2 379	2 498.38	1 480.32	1 930 (81.13) <sup>b</sup>	1 778.29 (71.18) <sup>b</sup>	1 006.88 (68.04) <sup>b</sup>	44 (1.85) <sup>b</sup>
Total	3 669	25 529.45	13 718.11	2 880 (78.50) <sup>b</sup>	16 002.29 (62.26) <sup>b</sup>	7 689.46 (56.04) <sup>b</sup>	162 (4.42) <sup>b</sup>

*Source:* Author's calculations from a report, "Progress of TUFs as on 30 November 2004", by the Office of the Textile Commissioner, Mumbai.

*Notes:* <sup>a</sup> Project costs/amount sanctioned are in crores of rupees (1 crore=10 million).

<sup>b</sup> Percentage of the corresponding total.

extent of SSIs. Thus, the reasons for the low investment may be a lack of awareness among the entrepreneurs about these schemes; therefore, the Government should take steps to promote such useful schemes.

As for the unorganized textile subsector, employment has been increasing despite falls in capital and output, an issue that is in striking contrast to that in organized textile subsector. From the late 1990s until 2001, capital productivity declined in this subsector, more so in urban than in rural areas. Capital intensity was much higher during 2000/01 than that during 1994/95 in all categories. While labour productivity grew in most of textile subsector between 1994/95 and 2000/01, with the exception of OAMEs, the apparel subsector was more labour-productive than the textile subsector. Enterprises in rural areas were more capital-productive, less capital-intensive and less labour-productive than were those in urban areas. The apparel subsector was less capital-productive, more capital-intensive (except in DMEs), and more labour-productive than in the textile subsector. These trends also varied across enterprise types. A major observation from the analysis of the unorganized textile subsector is that there has been a divide between various segments within the textile sector, in terms of performance.

The analysis of household demand has shown that the per capita textile purchases have been declining in real terms during the past few years. The excise and customs duties on man-made fibre textiles have been a barrier to increasing their purchases due to the fact that these duties are reflected in the prices and that the demand for these products is highly own-price elastic. Given the fact that the cross-price elasticity between cotton and these fibres is negligible compared with the own-price elasticities, a rise in demand for textiles without a fall in demand for conventional textiles could be ensured by a fall in prices of man-made fibre textiles. However, this would be possible only by cutting excise and customs duties on these products, as has been done during recent years. This appears to be a significant step towards fostering development in the country, from the supply side and demand side viewpoints.

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## VI. INDIAN TEXTILE AND CLOTHING SECTOR POISED FOR A LEAP\*

By J. N. Singh

### Introduction

The Indian textile and clothing industry, as one of the oldest industries of the country, has witnessed several changes in fortune during the post-independence period. Following a quick upturn in the immediate post-independence period until the 1960s, when the dominant industrial policy was that of import substitution, it went into a decline until almost 1985 as market forces were not being allowed to operate and the entire policy had become very restrictive and stifling. The "New Textile Policy" of 1985 managed to relax several licensing requirements, raised the maximum investment limit and generally created a good investment climate.

However, in the absence of a general economic resurgence in the country, the textile sector continued to languish until a few years ago. Since then, it has witnessed unprecedented optimism and investment, heralding the vision of a new and glorious era in the Indian textile and clothing sector. This chapter first reviews the static scenario of the Indian textile sector and its standing in the world textile economy. It then discusses and analyses the trend in production and exports of Indian textiles and clothing. Finally, it looks at supportive government policies for facilitating growth in this sector, the industry's response to those policies and emerging trends that are making the sector strong and vibrant. The chapter concludes with a discussion on what would make the Indian industry more competitive globally.

### A. Overview of the sector

The Indian textile and clothing industry is one of the largest segments of the Indian economy, as it contributes around 14 per cent of total industrial production, or about 4 per cent of India's gross domestic product, and about 17 per cent of the gross export earnings with a very low import intensity. The sector directly employs about 35 million people, making it the second largest provider of jobs after agriculture.<sup>1</sup>

The Indian textile sector is also well placed globally (table 1). In terms of installed capacity of spinning machinery, it ranks second after China, while in weaving it ranks first in plain looms and fourth in the shuttleless variety. In raw materials, it ranks third in cotton after China and the United States, first in jute, second in silk and fifth in synthetic fibres and yarn.

Thus, it can be seen that India is traditionally strong in textile production capabilities and in raw materials. However, decades of restrictive government policies favouring small-scale operations have led to certain structural weaknesses in the sector.

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\* For further statistical information and details, readers are invited to check [www.txcindia.com](http://www.txcindia.com) and [www.texmin.nic.in](http://www.texmin.nic.in).

<sup>1</sup> See Ministry of Textiles, 2007, *Annual Report, 2006/07* (also at [www.texmin.nic.in](http://www.texmin.nic.in)).

**Table 1. India's position in the world textile economy**

Category		World	India	India as per cent of world	India's world rank	Country with first rank
<b>Installed capacity</b>						
<b>Spinning – 2005</b>						
Spindles (cotton system)	Million	190.87	37.42	19.60	2	China
Spindles (wool)	Million	14.98	1.04	6.94	3	China
Spindles (cotton and wool)	Million	205.85	38.46	18.68	2	China
Rotors	Million	8.39	0.52	6.20	5	Russian Federation
<b>Weaving – 2005</b>						
Shuttle looms	Million	4.34	1.98	45.62	1	India
Shuttleless looms	Million	0.88	0.05	5.68	4	China
Handlooms	Million	4.60	3.90	84.78	1	India
Total looms		9.82	5.93	60.39	1	India
<b>Production (P)</b>						
<b>Fibre/yarn</b>						
Raw cotton (2005/06)(Oct-Sept)	Million kg.	24 756	4 148	16.76	3	China
Cellulosic fibre/yarn (2005)	Million kg.	2 529	295	11.66	2	China
Synthetic fibre/yarn (2005)	Million kg.	31 762	1 850	5.82	5	China
Raw wool (greasy) (2005)	Million kg.	2 164	45	2.08	7	Australia
Raw silk (2004)	Million kg.	126	17	13.49	2	China
Jute (2005/06)	Million kg.	2 826	1 575	55.73	1	India
Total		64 163	7 930	12.36		
<b>Yarn – 2005</b>						
Cotton yarn (est.)	Million kg.	24 994	2 460	9.84	2	China
<b>Fabrics – 2005</b>						
Cotton fabrics (est.)	Million kg.	14 011	2 071	14.78	3	China
<b>Per capita fibre consumption</b>						
Total fibre, 2005 (P)	Kg.	9.28	5.05	–	–	–
<b>World trade – 2005</b>						
Total textiles and clothing exports	US\$ billion	479.54	17.08	3.56	6	European Union 25

Sources: WTO, ITMF, ICAC, JMDC, ASFI and Fibre Organon, compiled in the "Compendium of international textile statistics" (available at [www.txcindia.com](http://www.txcindia.com)).

Therefore, although India has the highest number of weaving looms, the percentage of shuttleless looms (which ensure high-quality fabric) to plain looms is hardly 3 per cent compared with the world average of 16 per cent. Except for spinning, sectors such as weaving, processing and garment production are predominantly in the decentralized sector, thus lacking the advantage of scale. The processing and weaving sectors in particular are highly fragmented and technologically less advanced.

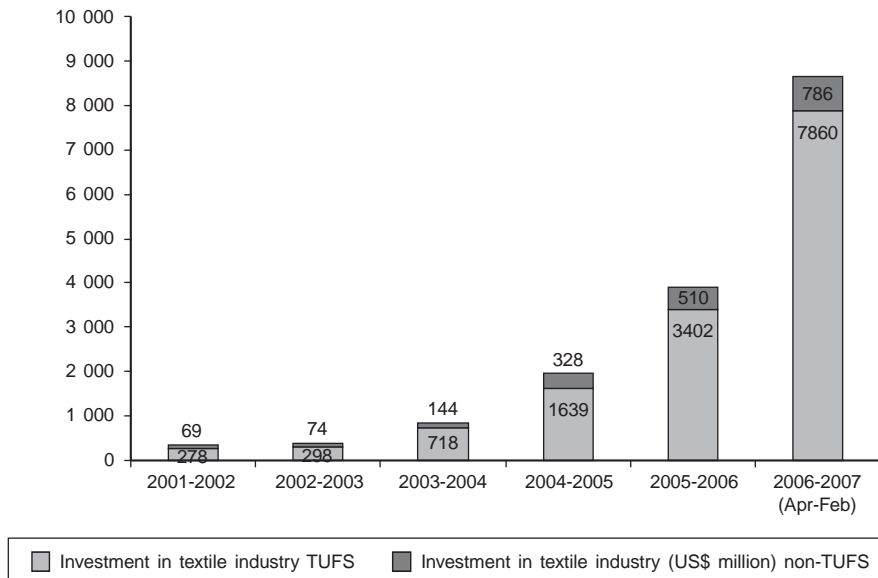
## B. Trends in investment and production

In the post-independence period until the mid-1980s, India followed a strong inward-looking policy, using a variety of regulatory mechanisms to orient the textile and clothing sector in a key way. A strict industrial licensing regime required firms to seek government permission for establishing any new operation or the expansion of existing ones, while several sectors such as garments, knitting etc., were kept restricted for small-scale entrepreneurs, and strict labour laws proved a disincentive for expansion. The New Textile Policy relaxed several licensing requirements, raised the maximum limits on allowable investment and reduced import controls. Businesses were also encouraged to modernize their technological base through the disbursement of cheaper lines of credit.

This trend continued in 1991 with the opening up of the Indian economy, but the sector remained largely stagnant and decaying during the 1990s when several large mills closed and several traditional entrepreneurs moved out of the textile trade.

In fact, after a very long time the sector has received a real boost only in the past four-five years as the general economy has substantially improved, leading to a surge in demand. There is an all-around sentiment of tremendous optimism, backed by a surge in production and investment growth. As the investment figures in figure I show, the sanctioned investment (basically, projects in various stages of implementation) has shown almost 100 per cent growth, year-on-year, for the past five years. The investment figures at this level have so far been unprecedented in the history of the Indian textile sector.

**Figure I. Sanctioned investments in India's textile and clothing sector**



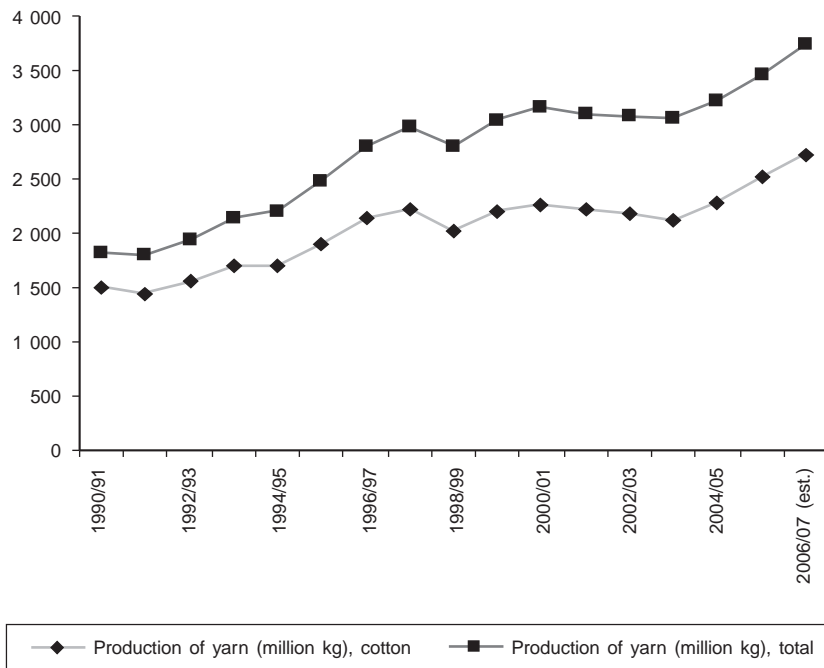
Source: [www.txcindia.com](http://www.txcindia.com).

Note: The non-TUFs investment is an informed estimate.

As a result, production in the Indian textile sector has certainly received a boost as can be seen from figures II and III, which show the increase in the production of yarn and fabric of cotton. In fact, the growth in yarn production has averaged between 8.5 per cent and 10 per cent for various types of yarn after a period of stagnation. Similarly, the rate of growth for fabrics in the past few years has increased from 8 per cent to 10 per cent and the target has been set at 12 per cent during the next five years of the Eleventh Plan. In cotton textiles, particularly, this growth has come after a long period of practically a flat graph.

At this point, it is worthwhile analysing the growth drivers that are boosting India's textile demand and consequent production. In the domestic sector, the increase in GDP per capita, at around 8.5 per cent for the past four to five years, has significantly increased the disposable income of the expanding Indian middle class.<sup>2</sup> The increasing number of working women, the greater use of credit cards and the greater number of working youths (a result of the much talked about "demographic dividend" boom in the construction/housing sector leading to the use of more home textiles) have all facilitated increasing purchases of textiles and clothing items. Above all, the growing penetration of organized retail (the percentage of which is expected to grow from the

**Figure II. Production of spun yarn in India**

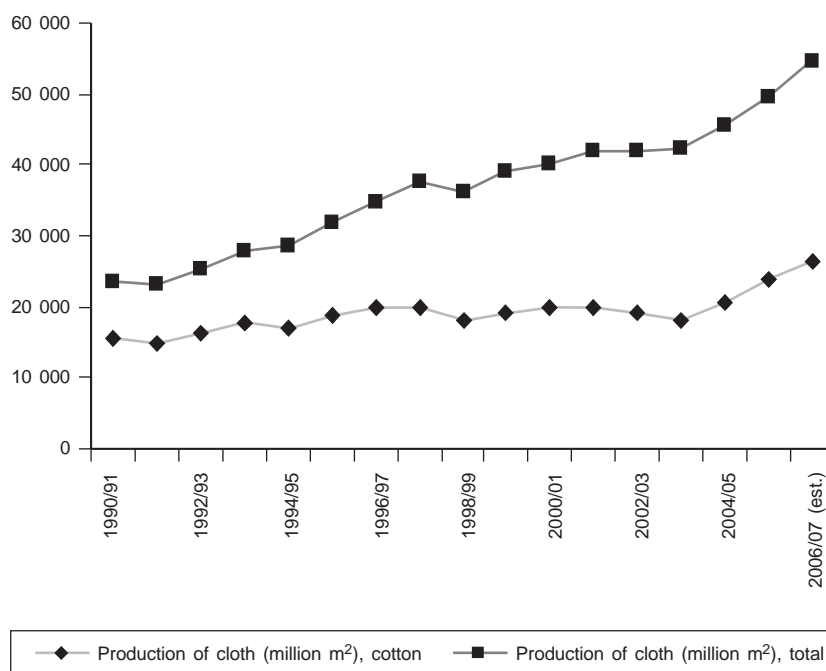


Source: *Official Indian Textile Statistics, 2005/06*, p. 21 (at [www.txcindia.com](http://www.txcindia.com)).

<sup>2</sup> For GDP figures, see *Economic Survey 2006/07* (also at [www.indiabudget.nic.in](http://www.indiabudget.nic.in)).



**Figure III. Production of cloth in India**



Source: *Official Indian Textile Statistics, 2005/06*, p. 30 (at [www.txcindia.com](http://www.txcindia.com)).

present 3 per cent to more than 10 per cent by 2010) (Kearney, 2006) will facilitate availability, thus substantially increasing purchases of textiles and clothing by Indian consumers.

In the export sector, the end of the MFA has given a boost to the Indian textile entrepreneur trend, which has been augmented by the progressive dismantling of spinning and weaving from the developed world.

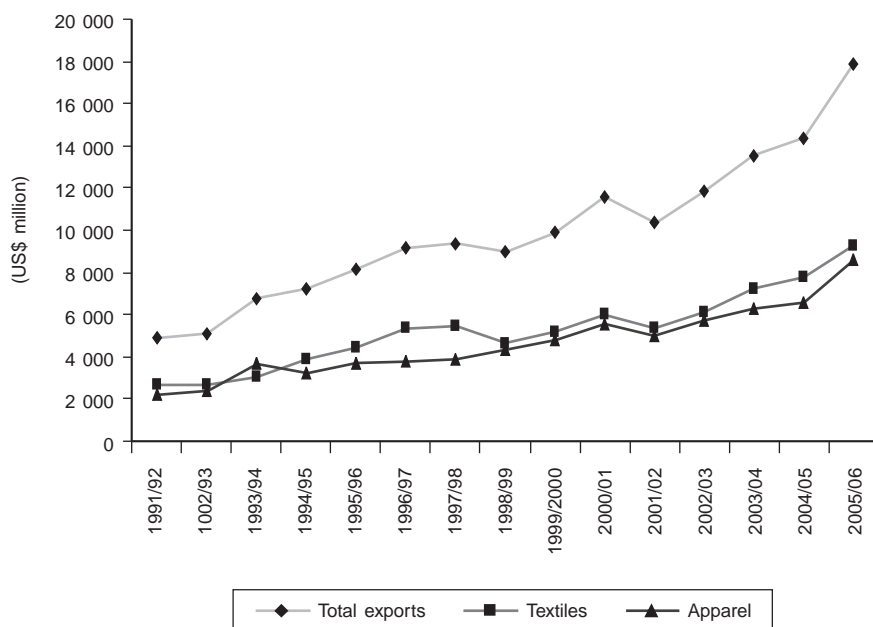
In fact, in response to the growth drivers, and in anticipation of those drivers becoming sustainable in the long term, the Indian textile industry has been making substantial investments in the past four-five years (see figure I).

### **C. Trends in exports: How does India fare?**

Indian exports from 1992/93 to 2005/06 showed an increasing trend (figure IV), especially in 2005/06, when a growth rate of 18.33 per cent was recorded.

However, India was not a big gainer during the early period of integration. While the share of China in global textile and clothing exports increased from 7.94 per cent in 1990 to 14.75 per cent in 2000, 20.93 per cent in 2004 and 24.02 per cent in 2005, India's figures are more modest. India's share increased from 2.22 per cent in 1990 to 3.16 per cent in 2000, 3.12 per cent in 2004 and 3.56 per cent in 2005.

**Figure IV. Growth in Indian textile and clothing exports**



Source: Foreign trade statistics of India (principal commodities and countries).

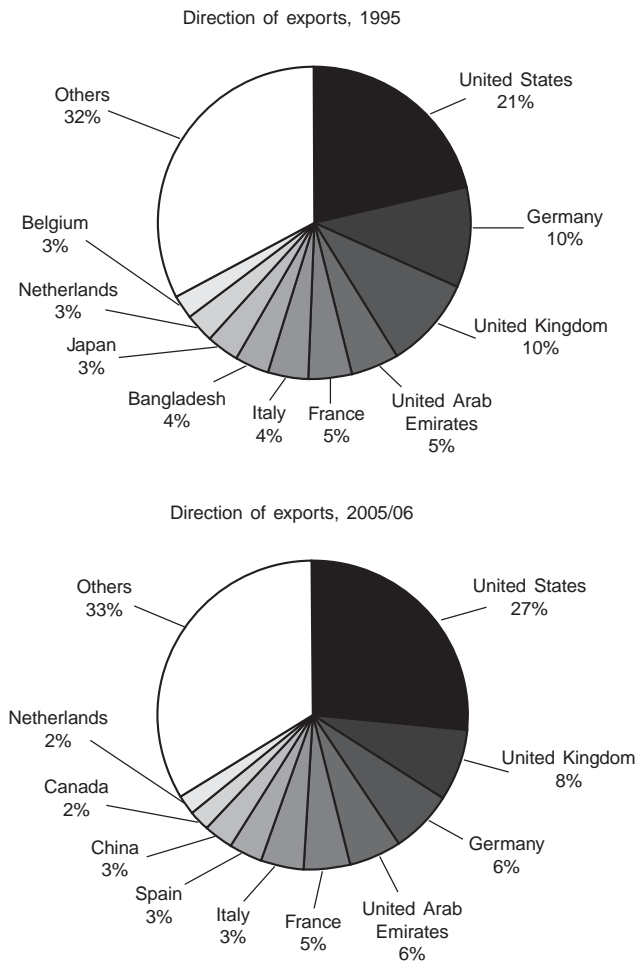
The United States has remained the largest single-country destination for Indian textile and clothing exports, with its share rising from 21 per cent in 1995/96 to 27 per cent in 2005/06 (figure V). The European Union, with 41.006 per cent, is a major destination. Among other major destinations are the United Arab Emirates (5.51 per cent), China (3.05 per cent), Canada (2.21 per cent), Bangladesh (2.15 per cent) and Saudi Arabia (2.02 per cent). Compared with 1995 figures, there has not been any major change. The United States and the European Union remain India's major destinations, with the latter country becoming of increasing importance. The major items of export to the United States comprise ready-made garments and made-ups, including home textiles and carpets. However, Japan has declined somewhat as an export destination, with a present export level of only 1.5 per cent compared with 3 per cent earlier. At the same time, not unexpectedly, China has become an important importer of raw cotton and cotton yarn.

#### **D. Analysis of production and export trends**

Certain characteristics of India's textile and clothing sector stand out when compared to other successful exporters.

First, unlike several other exporting countries, India has a strong domestic textile presence across the entire value chain, ranging from raw materials to garments. Indeed, India's apparel industry draws heavily on its local fibre and fabric base. It is thus hardly surprising that India's export basket consists almost equally of textiles and clothing, with

**Figure V. Direction of exports, 1995 and 2005**



Source: Foreign trade statistics of India (principal commodities and countries).

values of US\$ 8.86 billion and US\$ 8.22 billion, respectively. Only a few countries such as China, Indonesia, Pakistan and Turkey, plus the European Union, are strong in both subsectors or else their major clothing exporters are also significant textile importers.

However, this strength in textile production and raw materials has not been properly utilized in enhancing exports, as China has so capably done. One reason has been the restrictive government policies that, until the 1990s, kept the garment subsector only for the small-scale enterprise sector, while labour policies ensured that most industries would rather remain small and not take export orders then expand. Another reason was a huge disparity between domestic textile producers and apparel exporters – the two being separate set of entrepreneurs. The latter group was thus unable to take full advantage of India's extensive textile production capabilities.

Third, the Indian textile and clothing sector received an insignificant FDI inflow of only US\$ 450.02 million between 1991 and March 2006, amounting to just 1.16 per cent of total FDI of US\$ 38.96 billion.<sup>3</sup> This was due, in part, to the lesser attractiveness of India as an FDI destination and in part to the Government's restrictive policy. Thus, India was unable to gain from the growing global integration as the rapidly expanding apparel-exporting countries such as Cambodia, China, Mexico and Viet Nam, plus the countries of Eastern Europe, were able to expand their apparel exports due to substantial FDI inflows.

Another consequence of the poor FDI inflow was the relative absence of global retailers and textile chains until quite recently. The weak presence of major buyers such as Wal-Mart, Sears, Nike and Liz Claiborne hindered the organization of the domestic product towards substantive exports.

A third factor that hindered India's export growth was its absence from practically all major regional free-trade agreements. In the past decade, the fastest-growing apparel exporters – Bangladesh, Mexico, Romania and Turkey – have all been part of preferential trade agreements while China has received massive FDI inflows from Hong Kong, China, Taiwan Province of China and Japan. In fact, each of the above exporting countries experienced a surge in exports after joining their respective regional trade agreements or a bilateral preferential trade agreement.

## **E. Supportive government policies and new trends towards re-emergence of the textile economy in India**

### **1. Supportive government policies**

It has been shown above that the Indian textile and apparel sector has shown positive signs of an upturn in the past three to four years. The Government has taken several positive steps, detailed below, to facilitate the smooth growth of the sector.<sup>4</sup>

#### *(a) Technology Upgrading Fund Scheme*

To facilitate technological upgrading in the sector, the Government launched TUFs with effect from 1 April 1999 for five years initially, and which has now been extended up to 2011/12. The scheme provides for reimbursement of 5 per cent interest paid on term loans for technological upgrading of textile machinery. In this way, the Government has assisted the Indian textile companies by ensuring that they are not over-burdened by the high interest rate prevailing in the country.

#### *(b) Integrated textile parks scheme*

In order to a world-class infrastructure for textile units as well as facilitate the need for them to meet international social and environmental standards, this scheme envisages the creation of textile parks in the public-private partnership mode. Currently, 30 parks are in various stages of implementation, and 50 more are planned for the next five years.

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<sup>3</sup> See the proceedings of the seminar on "The Need and Scope of FDI in Indian Textiles" at [www.crisil.com/policy-advisory/seminar-textiles/](http://www.crisil.com/policy-advisory/seminar-textiles/).

<sup>4</sup> Details of these steps can be found at [www.texmin.nic.in](http://www.texmin.nic.in) and [www.txcindia.com](http://www.txcindia.com).

*(c) Fiscal rationalization*

In the 2006 budget, the excise duty on all manmade fibres and yarns was reduced from 16 per cent to 8 per cent. The 2007 budget carried it forward by reducing the customs duty on polyester fibres and yarns from 10 per cent to 7.5 per cent. The customs duty on polyester raw materials such as DMT, PTA and MEG were also reduced from 10 per cent to 7.5 per cent. These measures are expected to make manmade fibres and yarn cheaper and thus increase the competitiveness of fabric and apparel manufacturers.

*(d) Technology Mission on Cotton*

In February 2000, the Government launched the Technology Mission on Cotton with the objective of addressing the issues of raising productivity, improving quality and reduction of contamination in cotton. Indeed, cotton production in the past three years has increased substantially and contamination has been reduced, as assessed by independent agencies.

*(e) Other steps taken to increase competitiveness*

Earlier, only small-scale manufacturers were allowed to make woven RMG, knitted and hosiery products. While the initial aim was to boost employment opportunities and promote entrepreneurship at the smaller enterprise levels, in practice it rendered the small manufacturers uncompetitive globally. By 2003/04, the sector had been totally freed.

In addition, FDI up to 100 per cent through the automatic route has now been allowed.

## **2. Positive response of the industry**

The industry has responded positively to these policy initiatives, and investment in this sector has been unprecedented. In fact, growth figures during the past few years have made the entire textile industry brim with unprecedented confidence and optimism. It is no coincidence that two separate studies (although overlapping in part), carried out in 2006, projected almost identical growth targets for the industry. The first study was the "Report of the Working Group on the Textile and Jute Industry for the Eleventh Five-Year Plan",<sup>5</sup> in which the textile industry was projected to grow at 16 per cent in value to reach US\$ 115 billion by 2012. The report also projected a growth rate of 12 per cent in volume for cloth production while apparel was expected to grow at 16 per cent in volume and 20 per cent in value terms. Exports were expected to grow at a rate of 20 per cent in value.

The second study was the Confederation of Indian Textile Industries-sponsored "Vision for the Indian Textile and Clothing Industry" prepared by CRISIL.<sup>6</sup> The study envisages a figure of US\$ 110 billion by 2012, boosted by a CAGR of 10 per cent annually in the domestic sector and 19 per cent annually in the export sector.

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<sup>5</sup> See [www.txcindia.com](http://www.txcindia.com).

<sup>6</sup> See [www.citiindia.com](http://www.citiindia.com) for details.

### **3. Why has textile sector investment picked up only recently?**

A question that is persistently asked is why have the investments in the textile sector picked up only recently, especially when it had long been known that the MFA system would be fully dismantled from 1 January 2005. Of course, the post-quota atmosphere provided a tremendous incentive for the Indian textile and cloth entrepreneurs to grab the impending opportunity. However, an equally important factor boosting investment has been the present buoyancy in domestic textile demand and the expectation of continued buoyancy (the drivers of domestic textile growth, both in the supply and demand side, have been discussed above). At the same time, the Indian textile sector was only recently unshackled from most restrictions. In the apparel subsector, while the woven segment was de-reserved from the small sector industry limitation in 2001, the knitwear segment was totally freed only in 2005.

The fiscal rationalization in the entire sector began significantly in 2004. Naturally, investments started flowing in as the industry became unshackled and able to compete freely and fully. Yet another factor propelling investment has been the extraordinary growth in cotton production since 2004/05, which has removed the dependence on cotton imports and the consequent uncertainty leading to poor investments.

### **4. New trends towards re-emergence of the textile and apparel subsectors in India**

Several new trends can be seen in the textile and clothing sector that will only serve to strengthen the sector.

#### *(a) Consolidation and integration*

There is a significant scaling up by way of horizontal consolidation and vertical integration. The majority of the investments under TUFs have come not from new entrants but by the existing players. With the removal of restrictions on increasing capacity, following the progressive liberalization of this sector during the mid-1980s and continuing into the 2000s, the mean investment per firm in plant and machinery has significantly increased. In the past four, in particular, this trend has greatly accelerated. The largest Indian firms, such as Arvind, Indian Rayons, Vardhaman, Welspun and Alok, among others, have sanctioned investments of more than Rs 10,000 crores in the past few years.<sup>7</sup>

Second, there has been a significant forward integration into garments by yarn makers, spinners and major weavers. For example, Arvind Mills and Vardhaman exemplify this trend. Interestingly, a significant number of cotton ginners are forward integrating into spinning, as can be seen in the cotton areas of Andhra Pradesh and Punjab.

Third, significant backward integration by small and medium-sized knitwear exporters into yarn-making is occurring in the Coimbatore-Tirupur area. In fact, some of the best examples of full integration are exemplified by Alok, Welspun Industries and Vardhaman Industries, which straddle the entire range from spinning to branded garments and home textiles.

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<sup>7</sup> Office of the Textile Commissioner.

Thus, there is an all-around trend towards scaling up as well as capturing the entire value chain from spinning to garmenting, in order to gain from the efficiencies at each level. Even the government-facilitated integrated textile parks scheme is serving the purpose of informal consolidation, as despite separate ownership, firms are likely to have a similar brand name and take common big orders.

*(b) Blurring of boundaries between export and domestic markets*

Whereas previously domestic textile companies and exporters formed two separate sets of entrepreneurs, that boundary is now fast becoming blurred, as all major domestic players are becoming significant exporters. As purchasing power in the Indian market has increased, due to India's increasing GDP and "demographic dividend", there has been a rapid rise of domestic brands. Practically all of the 20 to 30 top textile and apparel firms have introduced their domestic brands and are aggressively positioning themselves within segments of domestic markets.

As these players become large, several of them are going beyond the national boundaries by purchasing international brands in order to penetrate the First World market as well as to supply the domestic market under that brand name. For example, in the home textile market, Welspun has purchased Christy while GHCL has purchased Dan River and Roseby's, Creative has purchased Portico brands to facilitate entry into the United States and European Union markets while Alok Industries has purchased 8 to 10 European brands.

Thus, the earlier difference between domestic manufacturers and exporters is being whittling away; the successful textile player has to constantly look at opportunities in the domestic and export markets.

*(c) Entry of large domestic and foreign retail buyers*

Until recently, India had been virtually ignored by the top international retail chains. Now their strong presence is increasingly being felt and several top firms have opened their sourcing centres in India. However, even more significant is the impending entry of the very large Indian retailers such as Reliance, Bharati-Wal-Mart, the Aditya Birla Group and Tata-Trent. Although the current penetration by organized retailers is only 3 per cent in India, it is expected to grow to around 12 per cent by 2012. As clothing forms an important aspect of organized retail, the sale of clothing through organized retail chain shops can be as high as 15 per cent to 20 per cent of total sales. This would still be much less than in the United States, where the 24 biggest retailers account for 98 per cent of apparel sales. The position in the European Union is similar.

International experience suggests that because of their large distribution network and considerable buying power, these high-volume retail chains exert a great deal of control over prices and quality terms. The retail experience has two other features. First is "lean retailing", which allows retailers to maintain a lean inventory, but will involve suppliers for "rapid replenishment" of goods. Second is the concept of "full packaging" in that rather than buy fabric from specific sources for conversion into apparel by different sources, the retailer prefers a "full package" solution from a limited member of sources.

Thus, the increasing presence of national and international major retailers in India will result in further formal and informal vertical integration and horizontal consolidation in the sector as well as in enhancing quality trends. The pressure on

margins will serve to reduce inefficiencies in the system by way of further modernization, consolidation and integration. The best outcome, however, will be the increase in the demand for fabric and, hence, an increase in the size of the sector.

*(d) Confident participation in foreign exhibitions*

Indian textile and apparel exporters are now confidently exhibiting at international trade fairs as they seek new areas and territories. The various textile and apparel export promotion agencies are currently extremely pro-active and have introduced several schemes for promoting exports to new areas. An example of this newfound confidence was the recent Indian participation in Heimtextile at Frankfurt where, after the German exhibitors, the second highest number of participants were from India.

## **5. Further steps required to increase India's competitiveness**

*(a) Improving labour laws*

One of the main requirements for growth in the apparel subsector is the relaxation/amendment of the labour laws, to ensure an equal chance of success for the country's exporters and manufacturers in the present global environment.<sup>8</sup> Outdated labour laws have induced inflexibility in the clothing industry, leading both to fragmented operations in order to circumvent these laws and to lost export orders due to industry's hesitation over expanding when there is an upsurge. Most of the countries competing with India have labour laws that are more flexible. For example, the Chinese apparel industry has highly flexible labour laws that allow for lay-offs during the non-peak season, hiring of contract labour, and a flexible hiring and firing system in SEZ-based units. The Mexican apparel industry allows layoffs during the slack business season.

The industry in India is proposing the provision of flexibility to textile exporting units in hiring labour, subject to ensuring 100 days employment to cater to variations in demand. An increase in daily working hours from 9 hours a day to 12 hours a day, and in weekly working hours from 48 hours a week to 60 hours a week, is also being proposed.

*(b) Decreasing transaction costs*

Various studies have established that the transaction costs faced by the Indian industry are very high, which adversely affects its competitiveness. A study undertaken by the EXIM Bank of India clearly showed that although transaction costs in India had declined because of declining procedural complexities, they were still substantially higher if compared with competitors. Transaction costs vary from sector to sector, and are very high in the textiles and garment subsector, ranging from 3 per cent to 10 per cent of export revenue in 2002. These costs, inter alia, are shown in table 2.

*(c) Improving the general infrastructural conditions*

This improvement includes roads, transportation etc., so that the costs of reaching the nearest port as well as turn-around time at the port are globally comparable, to ensure that Indian exporters are not placed at a disadvantage vis-à-vis global competitors.

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<sup>8</sup> For an outstanding analysis, see T. Besley and R. Burgess, 2004.



**Table 2. Transaction cost in Indian industries**

<b>Incidence of un-neutralized state taxes and duties</b>	<b>Percentage of FOB value of exports</b>
Sales tax (including CST)	3.41
Octroi, Mandi Tax and other local levies	1.36
Electricity duty	1.00
Others	1.00

Source: EXIM Bank Study, 2002.

*(d) Augmenting existing training infrastructure*

Significant improvements are necessary in order to ensure the availability of a sufficient number of trained personnel needed to meet the huge shortfall. Already, areas such as Tirupur and Surat are experiencing a noticeable lack of trained manpower.

## **F. Conclusion**

Investment in the textile sector in the past three to four years, the consequent increase in yarn and fabric production and the immense optimism witnessed in the sector have definitely resulted in a very different scenario compared to the stagnation and the despondency witnessed just five or six years ago. As India's Minister of Textiles Sri Shankersinh Vaghela has said, "the erstwhile sunset sector is now recognized as the new sunrise sector".

However, it must be recognized that the industry still has a long way to go, these recent advances notwithstanding. Large sections of the textile value-chain still need to be fully modernized, while the export sector has yet to take full advantage of its existing production strength. There are many areas around the world and many product lines where India is very weakly represented. Thus, while the private sector will need to continue its heavy investment in this industry during the next several years, building on the recent positive trends, India also needs to integrate more fully into the global textile and apparel value chain in order to reap the full benefits from its strengths.

Only a coordinated effort by all – the Government, industry and individual units – can enable India to achieve its apparently high and stretched targets of the eleventh Five-Year Plan. Therefore, the next five years will indeed be a period of reckoning when the future direction of the Indian textile and apparel sector will be set for the foreseeable future. The period 2007/12 will also show whether India has successfully grasped the momentous and unprecedented opportunity that has come its way.

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## VII. TEXTILES AND CLOTHING TRADE POST-AGREEMENT ON TEXTILES AND CLOTHING: CAN TRADE FACILITATION HELP?

*By Noordin Azhari*

### Introduction

Developed and developing countries increasingly recognize that trade facilitation could be instrumental in saving traders from a great deal of difficulties and wastage of resources, collectively known as trade transaction costs. The objective of trade facilitation is to reduce the cost of doing business among all parties by eliminating unnecessary administrative burdens associated with moving goods and services across borders. The means of achieving this objective are the simplification, modernization and automation of trade procedures to match established international standards. Because trade facilitation is instrumental in removing bottlenecks in import and export, it has also been referred to as the "plumbing" of international trade.

Trade facilitation may be defined<sup>1</sup> as the simplification and harmonization of international trade procedures, encompassing the activities, practices and formalities involved in collecting, presenting, communicating and processing data required for the movement of goods internationally. This definition is related to a wide range of activities associated with import, export and transit procedures (e.g., customs or licensing procedures), transport formalities, and payments, insurance and other financial requirements. Yet, however one defines trade facilitation, its ultimate meaning is the ease by which goods move across international borders, whether the goods are arriving at their final destination or in transit to final consumption in other trading economies.

In the international textiles and clothing trade, tariffs and quotas are indeed important determinants of trade flows. In the post-ATC period, it has been observed that market access improvement through tariff reduction and quota removal has been negated by the imposition of other measures such as the use of antidumping measures, restrictive rules of origin together with existing administrative and physical barriers. The latter, coupled with cumbersome border procedures, a lack of infrastructure and high transportation costs, have the same effect on trade as high tariffs.

According to Nordås (2004), port efficiency, control of corruption and quality of infrastructure are among the most important trade barriers affecting international production networks in the textiles and clothing sectors.

While one can argue over which of these or other barriers are more important, it cannot be denied that countries with a weak infrastructure and time-consuming border crossing procedures will be less attractive for inclusion in the international production networks in the post-ATC period. Furthermore, poor infrastructure and weak control of corruption reduce the ability of exporting firms to pay decent wages to their workers. This is because producers cannot significantly affect the market price of their product or material inputs. When costs are high due to the weaknesses discussed above, labour costs have to give way.

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<sup>1</sup> There is no universally agreed definition on trade facilitation yet.

Many studies that have evaluated the implication of quota-free textiles and clothing trade have concluded that lead-time is likely to be more important in the post-ATC market. Therefore, a combination of being dependent on imported intermediate inputs, having a weak infrastructure and weak control of corruption can be particularly damaging. Thus, under the post-ATC environment, time taken to reach markets has become an important factor in determining whether a textile and clothing company can sustain, or remain within, the global textiles and clothing supply chain network.

### **A. Importance of trade facilitation**

Walkenhorst and Yasui (2003) estimated that if transaction costs were reduced by 1 per cent globally, welfare gains would amount to about US\$ 40 billion, with all countries benefiting and non-OECD countries experiencing the biggest gains in relative terms. UNCTAD (1994) calculated that trade transaction costs equal to 7-10 per cent of total value of world trade. European Union estimates that in intra-EC trade, transaction costs equal between 3.5 per cent and 15 per cent.<sup>2</sup>

In addition to the above, cumbersome trade procedures and documentary requirements cause delays in shipments of goods and services that may also be translated into costs (see table, "Procedural hurdles in trading in selected regions"). The delays will be compounded if there are minor mistakes in the documents submitted. With an average of 27-30 different parties involved in a single international trade transaction involving 40 documents, 200 data elements (30 of which are repeated many times) and re-keying of 60 per cent to 70 per cent of all data at least once, mistakes can and do happen along the paper trail.<sup>3</sup> The figure, "Data repetition in trade documentation", illustrates data repetition by type of documentary requirement.

Someone has to bear these costs. If the seller absorbs the cost, his profit margin will be reduced. If he chooses to pass it on the buyer, his price may not be competitive. This is where the importance of trade facilitation comes in, especially as most developing countries are dependent on international trade. This becomes more critical if the seller's exports contain high proportion of imported intermediate goods. Thus, an inefficient trade facilitation system cuts both ways.

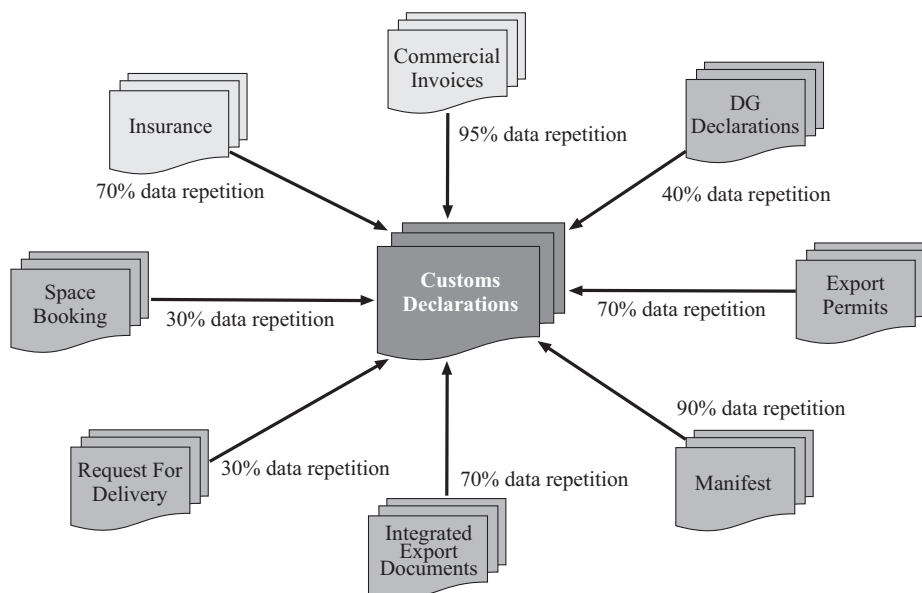
Trade facilitation is recognized as a tool that reduces time, transaction costs and the complexity of international trade. Well-targeted trade facilitation measures, such as the establishment of Single Window facilities, the introduction of a Single Administrative Document, the application of risk management techniques and "green lanes", will be beneficial both to governments and to businesses. Governments benefit from enhanced revenue collection, better statistics and administrative controls, while businesses benefit from faster customs clearance. From a country perspective, trade facilitation could lead to better trade and economic performance. From a regional integration perspective, trade facilitation can be a useful tool that will promote intraregional trade and the establishment of regional production networks.

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<sup>2</sup> Estimates vary depending on the methodology and parameters used.

<sup>3</sup> See APEC Business Advisory Council Report, 1996

### Data repetition in trade documentation



Source: Dagangnet presentation, 2005.

### Procedural hurdles in trading in selected regions

Region/ Economy	Documents for export (number)	Signatures for export (number)	Time for export (days)	Documents for import (number)	Signatures for import (number)	Time for import (days)
East Asia & Pacific	7.1	7.2	25.8	10.3	9	28.6
Europe & Central Asia	7.7	10.9	31.6	11.7	15	43
Latin America & Caribbean	7.5	8	30.3	10.6	11	37
Middle East & North Africa	7.3	14.5	33.6	10.6	21.3	41.9
OECD	5.3	3.2	12.6	6.9	3.3	14
South Asia	8.1	12.1	33.7	12.8	24	46.5
Sub-Saharan Africa	8.5	18.9	48.6	12.8	29.9	60.5

Source: World Bank at [www.doingbusiness.org/ExploreTopics/TradingAcrossBorders/](http://www.doingbusiness.org/ExploreTopics/TradingAcrossBorders/).

Several studies have tried to estimate the benefits that could be derived from implementation of trade facilitation measures. According to APEC, a 5 per cent reduction in trade transaction costs for trade in goods by 2006 would have raised APEC's GDP by 0.9 per cent, which in absolute terms represents around US\$ 154 billion (APEC, 2002). The APEC study concluded that improvements across the board in trade facilitation in customs, standards, business mobility and e-commerce would surpass the impact of tariff reduction on intraregional APEC imports.

The World Bank (2004) report on global economic prospects for 2004 estimated that enhancing capacity in global trade facilitation would increase world trade in manufacturing goods by approximately US\$ 77 billion, an increase of about 9.7 per cent.

A European Commission study<sup>4</sup> indicated that there were many benefits of trade facilitation – for governments and citizens alike. It showed that the cost of trade procedures could represent as much as 4-5 per cent of the overall costs of trade transaction. This cost is about the same as the current tariff average for trade in industrial goods by industrialized countries, which is 3.8 per cent. Halving the costs would mean saving US\$ 325 billion annually – money currently being wasted largely at the expense of SMEs and developing country traders.

As mentioned above, trade transaction costs are reflected not only in the direct monetary outlays associated with tariffs, freight, insurance, transportation etc., but also in indirect expenses such as time and uncertainties. A study by Hummels (2001) found that for United States imports, the time cost of one day in transit is equivalent to an ad valorem tariff rate of 0.8 per cent, yielding the equivalent of a 16 per cent tariff on an average ocean shipment of 20 days. An ESCAP time-cost-distance study, using a modified gravity model, estimated that on average, each additional day that a product was delayed reduced trade by at least 1 per cent.

Put differently, each day's delay is equivalent to a country distancing itself from its trade partners by 85 km on average. Delays have an even greater impact on developing country exports and the exports of time-sensitive goods, such as perishable agricultural products. In particular, a day's delay reduces a country's relative exports of time-sensitive to time-insensitive agricultural goods by 7 per cent. Higher-end apparel may also be considered as "perishable" due to its short lead-time requirement, thus making it time sensitive.

Recognizing the importance of the contribution of trade facilitation, the following programmes/action plans have been adopted by various regional groupings and initiatives:

- (a) The Trade Facilitation Action Plan of APEC;
- (b) The Pacific Regional Trade Facilitation Programme of the Pacific island countries;
- (c) The Regional Trade Facilitation Programme of SADC/COMESA; and

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<sup>4</sup> See [http://ec.europa.eu/taxation\\_customs/resources/documents/trade\\_facilitation-interest\\_for\\_developing\\_countries.pdf](http://ec.europa.eu/taxation_customs/resources/documents/trade_facilitation-interest_for_developing_countries.pdf).

- (d) The Trade and Transport Facilitation Programme in South-East Europe (being implemented by the World Bank).

The renewed interest in trade facilitation is also influenced by other recent developments such as WTO trade facilitation negotiations, just-in-time operations and the need for a swift flow of data and information, and trade and security.

### **1. World Trade Organization**

Trade facilitation has become a prominent negotiating issue of the WTO Doha Development Agenda negotiations. The initiation of trade facilitation negotiations by the July Package has placed this issue in the forefront of the development agenda of most developing countries. These negotiations are focused on clarifying and improving relevant aspects of GATT Articles V, VIII and X, which contain provisions on goods in transit, fees and formalities for imports and exports, and transparency issues.

### **2. Just-in-time operations**

Modern businesses involving just-in-time operations and IT-based processes have accelerated the pace of doing business and the demand for fast and predictable release of goods. However, they are often hampered by inefficient customs and other administrative procedures throughout the complete international supply chain, causing serious delays in goods delivery and increasing transaction costs.

Several countries in the Asian and Pacific region have implemented modern IT-based trade methods and have succeeded in reducing these delays. Such trade methods include paperless environments, ICT-enabled Single Window facilities or Internet-based systems, all of which enable swift exchange of data and information electronically. The success stories of Dagang Net in Malaysia, TradeNet of Singapore, and TradeLink and the Digital Trade and Transportation Network in Hong Kong, China, could serve as the drivers in the Asian and Pacific region by helping neighbouring countries to implement similar systems.

### **3. Trade and security**

Since the 11 September 2001 terrorist attacks, trade security has become an integral part of the global supply chain. The traditional threat to trade has changed to threat from trade. The challenge is how to facilitate the secure movement of the vast majority of legitimate international cargo as efficiently as possible, while at the same time effectively dealing with the small percentage that may pose a threat to security. This involves the application, at both the national and the international levels, of the many existing trade facilitation tools, instruments and recommendations related to the process and practice of international trade. Such measures could accelerate the implementation of new trade facilitation techniques and procedures, including risk management techniques, the concept of authorized traders, pre-arrival clearances or post-clearance audits, which often require an extensive use of ICT and advance information.

In this context, trade facilitation and trade security have complementary goals. The higher information content of many trade security efforts have, as their complement, improved trade facilitation outcomes. Moreover, it is clear that since many economies

are well inside the frontier of global best practice in the area of customs and port logistics, improvement will “kill two birds with one stone” by yielding better trade facilitation and trade security (APEC, 2002).

## **B. Textiles and apparel, post-ATC**

### **1. Current situation**

From 1 January 2005, textiles and clothing, after more than 40 years of deviation, returned to the general rules and disciplines of WTO. While this change was expected to bring considerable welfare gains, it also posed some significant challenges to developing countries.

According to Adhikari and Yamamoto (2005), the textile and clothing market has been transformed into a buyers' market, with a small number of large retailers dominating the sector. The economic power of large retailers, predominantly in developed countries, has increased substantially over the past few years. In the United States, for example, the 29 biggest retailers account for 98 per cent of sales. The trend now is towards greater product specialization, brand names and market segmentation. These large retailers collect market information about the latest trends in styles and tastes, and their integration of this information gives them a considerable advantage in dealing with suppliers (Kelegama and Weeraratne, 2005).

In a buyers' market, buyers' preferences shape market response in the exporting countries. To enhance their competitiveness, the buyers who, in turn, are importers and retailers are pushing their suppliers hard not only to offer the best prices, but also premium services in production management, design, delivery and the entire supply chain management. Increasingly, the United States and European Union importers and retailers are also requesting overseas suppliers to comply with their practices in ethical sourcing as well as security measures.

Under the MFA and ATC, the existence of quotas made it necessary for buyers to source from different locations. They were compelled to source from locations where quotas were available, instead of from locations with better competitiveness in textile and clothing production. The removal of quotas has enabled buyers to source from locations that offer the most competitive products and services, leading to a reduction of sourcing locations. Under these circumstances, a typical importer, for example, may reduce its number of sourcing locations from more than 30 to around 10 after quota elimination (Nordås, 2004). This is expected to lower administrative costs, given that some 40 per cent of the time and effort was previously spent on allocations of orders to a large number of sources. Lead-time has also changed dramatically.

Without quota restrictions, price competition among suppliers will intensify. On the one hand, lower prices are now possible due to the elimination of quota premiums. On the other hand, competition will become more intense as newcomers from different locations, and not just companies holding quotas as in the past, make a great effort to actively explore the United States and European Union markets. The removal of quotas, in tandem with an increasing number of new players clamouring for market share, is exerting enormous downward pressure on the prices of textile and clothing products.

Under this operating environment, while low wages can still give developing countries a competitive edge in world markets, quick turnaround times are now playing



a far more crucial role in determining international competitiveness in increasingly time-sensitive textile and clothing markets.

## 2. Production

Between textiles and clothing, textiles are more capital-intensive than clothing; many LDCs have a comparative advantage in clothing, but less so in textiles. International production networks allow more extensive specialization than inter-industry or horizontal intra-industry trade. Hence, a country can specialize in, and export labour-intensive activities within a production network, even if that country does not have a comparative advantage in all (or even the majority of) activities in a sector. Similarly, countries that have lost their comparative advantage in a sector can specialize in the skills and capital-intensive activities, and retain some jobs in the sector. Thus, poor countries with abundant unskilled labour can enter assembly activities in the clothing sector at an early stage of industrialization, while rich countries can maintain design, research and development, and marketing long after production has been relocated to lower-cost countries.

The clothing industry is particularly fragmented by way of vertical specialization through the outward processing trade (OPT) method. Under this manufacturing arrangement, the host country imports mostly pre-cut inputs for assembly, sewing and re-exporting to the country in which production has been arranged, without additional customs on the exported labour. For low-wage developing countries, the assembly of imported fabrics into apparel is a simple form of industrial activity. On the other hand, for developed countries, wage-enhancement transactions strengthen the competitive position of domestic suppliers by enabling them to transfer the labour-intensive sewing activities into these low-wage countries. This business is dependent upon achieving quality to required standards at the cheapest price.

To make OPT work, the cost savings associated with low-wage assembly must exceed the additional costs of production fragmentation. Any increase in production costs (labour costs, for example) may prompt the client to turn to competitors. Competition between suppliers sometimes allows major buyers to obtain discounts on the price they pay for garments, which in turn further reduces the manufacturers' profit margins, together with any prospects their workers have of securing improved conditions.

It is widely known that production wages in the developing world are so low that they represent a mere fraction of the cost of a garment sold. However, given the very low prices imposed by the major sourcing companies on their suppliers in developing countries, the suppliers' profit margin is small (see box article). Competition between suppliers sometimes allows major buyers to obtain discounts on the prices they pay for garments, which in turn further reduces the manufacturers' profit margins. Costs saving resulting from the implementation of trade facilitation reforms may be able to contribute towards ensuring that workers in developing countries receive reasonable wages despite the low profit margin. If the manufacturers are squeezed over their selling price by the importers/retailers, the savings from lower internal trade transaction costs can buffer this downward pressure.

The importance of an efficient transportation infrastructure, reliable and competitive modes of transport, the development of multimodal transport and logistics services as well as simplified customs procedures for maintaining a competitive edge in the

### Profit margins

- "Chinese textile companies reported an average profit margin of only 3.7 per cent last year, much lower than the national average of 5.69 per cent for all industrial enterprises, according to a National Development and Reform Commission report." – Xinhua News Agency, 9 February 2007.
- "The Chinese textile industry is still at the processing stage in the global industry chain, which features the extensive growth mode and [a] low level of exports in general. The average profit margin of Chinese textile exporters is only 3 per cent to 5 per cent. Most exports are OEM or ODM products, while only 10 per cent are products with our own brands." – Minister Bo Xilai at the third Global Textile Business Forum, 16 June 2006.
- "... most exporters are operating at 2-3 per cent profit that used to be around 15 per cent a few years back. ... the exporters are not in a position to absorb the shock if a foreign buyer defaults on goods sent on consignment basis." – *World Trade Review Pakistan*, vol. 7, No. 6.
- "The clothing and textile sector has seen its profit margin fall to 1.1 per cent, a huge percentage cut from the five-year average of 2.8 per cent." – Stephen S. Poloz, Senior Vice-President, Corporate Affairs and Chief Economist, Export Development Canada, 30 August 2006.

highly competitive textile and clothing markets is high.<sup>5</sup> Reliability of the transportation infrastructure and efficiency in customs procedures complement each other in minimizing transit periods for shipments involved in international trade and can make geographically remote locations more internationally competitive.

Paramount to the development of the clothing industry is the ability to deliver the products into the markets against tightly controlled schedules. Many retail groups now book transport at the same time as placing their orders for production, to ensure that the products are collected and delivered against their preplanned intake of stock. Late deliveries, however caused, are no longer acceptable in the highly competitive markets of Western Europe (Centre for Research and Policy Making, 2005).

Time is therefore a key issue. Ever-shorter deadlines have become one of the buyers' central requirements, where just-in-time delivery and logistic services play a crucial role. For the suppliers, it means having to deliver smaller orders in shorter time and according to very tight export deadlines. If they fail to do so, they incur fines and other penalties such as heavier freighting charges.

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<sup>5</sup> A study of the Bangladesh textile and clothing sector indicated that the era of the 90-day lead-time would soon be over. A serious effort must therefore be made to strengthen further backward linkages for producing fabrics, particularly for providing inputs to the export-oriented, woven-RMG sector. Efficient infrastructure services and port facilities reduce administrative hassles and a conducive investment environment will be necessary to bring down the cost of doing business in Bangladesh.

The traditional system of ordering in bulk to meet consumer demands in the basic four seasons has dramatically altered. Mid-term collections are becoming more numerous. Buyers commit later and later, and split their large orders into several small ones that are delivered all throughout the season.

Pressure to speed up production time is continually increasing in the textile and fashion field. For example, according to a Puma source: "Lead-times are today important. Here we try to shorten lead-times in order to become competitive, especially in that area where fashion brands are working with very short lead-times, [as] we have to compete with them" (OXFAM, 2004).

### **3. What can trade facilitation reforms do?**

International trade has grown rapidly in recent years and, with it, the relative importance of border procedures such as customs requirements, adding to the costs incurred by governments and businesses, and ultimately the customers. Indeed, in some cases, surveys have suggested that border-related costs, such as the expense of supplying the required customs documentation or the surcharges arising from procedural delays when importing goods, could total as much as 15 per cent of the value of the goods being traded (OECD, 2003). By rule of thumb, the incidence is more pronounced and expenses on border-related charges are higher in developing countries due to inefficiency and complicated bureaucratic procedures. Therefore, improved trade facilitation is even more critical for the survival of the textile and clothing industry of many Asia-Pacific region countries in the post-ATC era.

Given the move towards vertical specialization and slicing up of the value chain, each day saved could provide enormous benefits in terms of enhancing the industry's competitiveness. This is more so in the case of time-sensitive clothing products, where fashion changes rapidly and a delayed consignment could lead to cancellation of orders.

OECD (2004) cites a study by Verma (2002) estimates that Indian companies suffer a 37 per cent cost disadvantage in shipping containers of clothing products from Mumbai/Chennai to the east coast of the United States, relative to similar container shipments originating from Shanghai. This cost disadvantage arises from delays and inefficiencies in Indian ports. The study also highlights the importance of efficient port infrastructure, reliable and competitive modes of transportation, and efficient customs procedures for maintaining an edge in the competitive, time-sensitive and fashion-oriented textile and clothing markets. Similarly, an Asian Development Bank (2006) technical assistance study in 2003 found that clothing producers in Bangladesh could earn 30 per cent more if inefficiencies were removed at Chittagong port.

Trade facilitation also improves government revenue and promotes good governance through transparency, reduction of corruption, better regulation, due process and public-private sector cooperation. A study by Engman (2005), which comprised 12 country case studies to evaluate the impact of customs reform on government revenue, concluded that customs modernization programmes could have a marked positive effect on the collection of trade taxes, if effectively implemented. The study also mentioned that several countries had more than doubled their customs revenue after the introduction of comprehensive reform programmes, and that country experiences also indicated that even relatively modest modernization programmes had brought quantifiable increases in customs revenue. This finding proved that rationalized and efficient customs procedures boost customs duty collection. Since the majority of developing countries depend substantially on customs duties for financing public expenditure, improved trade facilitation would enhance their ability to augment their revenue.

Another compelling reason for developing countries to adopt trade facilitation measures is that because inefficient procedures represent a “fixed overhead”, the burden is likely to fall disproportionately heavily on small and medium-sized enterprises (SMEs) of those countries. SMEs are often unable to employ dedicated personnel in charge of logistics because of resource constraints. Since most of the textiles and clothing industry in the Asia-Pacific developing countries are SMEs, they will suffer the most if inadequate attention is given to trade facilitation measures.

#### **IV. What can be done?**

##### **1. Global level**

Improvements in the effectiveness of infrastructural services such as ports and customs and in infrastructure (both transport and ICT) in general are decisive for export performance, both within the assembly system and for upgrading to full-package services. The WTO Doha Round provides an opportunity to implement such reforms in an international context through the negotiations on trade facilitation where technical assistance is part of the deal. However, large-scale investments in infrastructure are often not affordable, at least not in the short term, for many developing countries. On the other hand, reforms that improve port efficiency and reduce the time for customs clearance should be possible in the short to medium term, and could have a significant impact on export performance, employment and wages. In addition, trade policy measures such as reducing or eliminating tariffs on imported intermediate inputs and machinery, would improve export performance. Finally, easing constraints, if any, on foreign direct investment in the textiles and clothing sector and crucial logistics services could help developing countries become better integrated into global or regional production networks.

##### **2. National and regional levels**

Because trade facilitation has many stakeholders that cut across both the public and private sectors, trade facilitation reforms need strong and influential champions to push the agenda forward on a sustained basis. The private sector, through trade associations or chambers of commerce, can first propose that their governments take a closer look at the need for trade facilitation reforms within the country. The overall objective is to reduce the transaction costs at the national level in a more concerted and coordinated manner.

Bearing in mind that there is no such thing as “an island of competitiveness” at the subregional level where RTAs exist, trade facilitation must be accompanied by similar regional level initiatives. It is imperative that national level reform, at the same time, ensures that national trade documentation and procedures are standardized and harmonized within the subregion. This process will ensure that the subregion as a group is equally efficient. This will encourage investment and the establishment of more production networks within a subregion. This could overcome the lack of forward and backward linkages in the textile and clothing sectors in individual developing country. The linkages could then be augmented at the subregional level if the right investment climate could be established.

To achieve the above sets of objectives, a step-by-step approach to national and regional trade and transport facilitation is required. It would be prudent to first assess the existing trade facilitation environment, including the problematic areas and bottle-

necks, at the national level. Furthermore, it is necessary to identify the needs and requirements of individual member countries in trade facilitation, including the capacity-building priorities. This will allow a more targeted reform programme for addressing or rectify gaps. There should also be development of an agreed set of trade facilitation indicators or a trade facilitation index that can be used as benchmarks against which the relative position of each member country can be measured. Developing such an index could help in prioritizing elements of national policy and procedures that have an impact on a country's "facilitation profile." Such an index could also help focus public attention on areas where progress has been made or where work remains to be done.

The implementation of trade facilitation reforms should result in, among others:

- (a) Development and adoption of individual national and regional action plans on trade and transport facilitation reforms;
- (b) Implementation of trade facilitation measures aimed at simplifying, standardizing and harmonizing trade documents and procedures;
- (c) The introduction of transparent and consistent rules and procedures;
- (d) Establishment of new, or the strengthening of existing national trade and transport facilitation committees;
- (e) Creation of a regional platform on trade and transport facilitation;
- (f) Enhancement of public-private partnerships for trade and transport facilitation at the national and regional levels; and
- (g) Ensuring interoperability of national Single Window facilities.

To successfully implement any trade facilitation reform or programme, the following prerequisites are essential:

- (a) Political will. This is crucial to providing the required push for the reform. The different and sometimes contradicting aims of ministries as well as the relative absence of domestic push on reform can effectively derail a trade facilitation programme;
- (b) National strategy. Governments must have a national strategy in which trade facilitation plays an important role in enhancing the competitiveness of traders, especially SMEs;
- (c) Effective monitoring. Without effective monitoring, trade facilitation is likely to fail. Responding to users requirements and feedbacks, checking up on the implementation of launched programmes and building on the training provided are all elements of success in this regard;
- (d) Human capacity-building. The need here is not extensive courses or training but in ensuring that trained personnel apply the knowledge acquired;
- (e) Infrastructure. Among the most important pillars needed is extensive dependence on automation and computer use. Without automation, trade facilitation with its basic requirements is unlikely to bear fruitful results;

- (f) A national transport facilitation body. Each country must commit to establishing a National Trade and Transport Facilitation Committee, which will be the main driver of trade facilitation at the national level. If one already exists, efforts must be made to make sure it is effective and functioning. The membership of such a committee must be open to all stakeholders in both the public and private sectors;
- (g) Change management, The implementation of these trade facilitation reforms needs a dedicated platform in-country as well as at the subregional level in ASEAN, SAARC/SAFTA and ECO. Such a body or committee would be responsible for the overall coordination and monitoring of the trade facilitation programme. The private sector representatives must be from those representing the manufacturers, logistic providers, port operators and SMEs etc.

## V. Conclusion

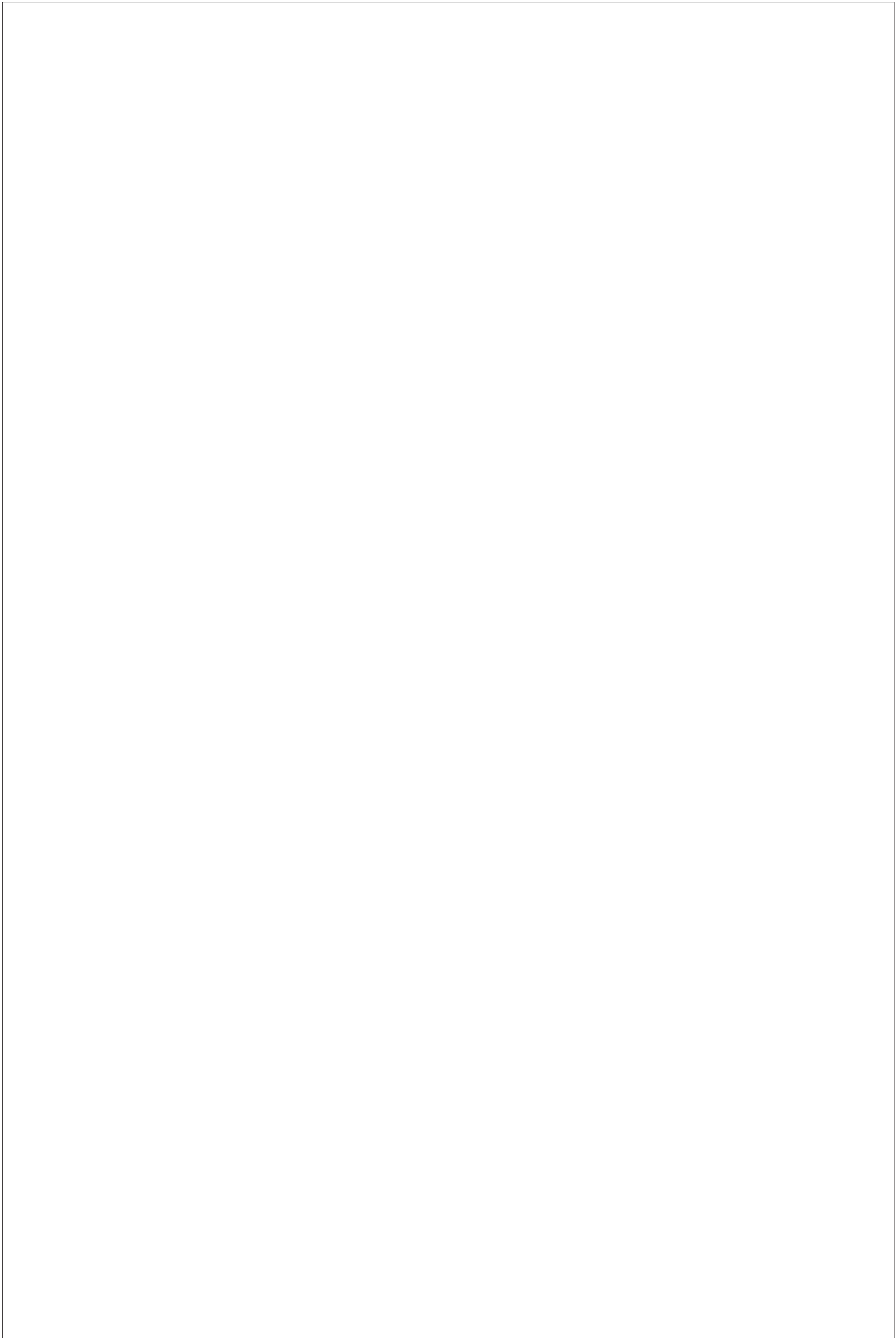
Trade facilitation reforms is a generic tool to reduce trade transaction costs and increase competitiveness that can lead to enhancing the overall investment climate of a nation. Within the context of textiles and clothing, it can help promote backward and forward linkages for increased investment in the textiles and clothing industry, and more importantly it can assist the industry in terms of meeting shorter leadtime. A reduction in the transaction costs, irrespective of the size of the company, is especially critical to the survival of this industry, which is characterized by thin profit margins.

The ESCAP mission in the area of trade facilitation is to support activities dedicated to improving the abilities of traders and the administration by its member countries of exchanges of goods and services effectively and safely. The main emphasis needs to be placed on promoting the simplification, harmonization, standardization of procedures and related documentary requirements in international trade, thus reducing the transaction costs and time.

ESCAP has been assisting its member countries in developing national trade facilitation plans of action based on the identification of the needs and priorities of individual countries; encouraging establishment of new or enhancing of existing national coordination bodies for facilitating trade and transport; and increasing awareness and implementation capacity of global and regional legal arrangements related to trade facilitation. "ESCAP is intensively promoting the establishment of a regional forum for trade facilitation – the Asia-Pacific Forum for Efficient Trade (AFET) and possible sub-regional forums to meet and discuss common problems". In this regard, ESCAP adopts an inclusive approach in trade facilitation by ensuring that all stakeholders are involved, i.e., the public sector (all relevant government agencies) and private sector (manufacturers and service providers).

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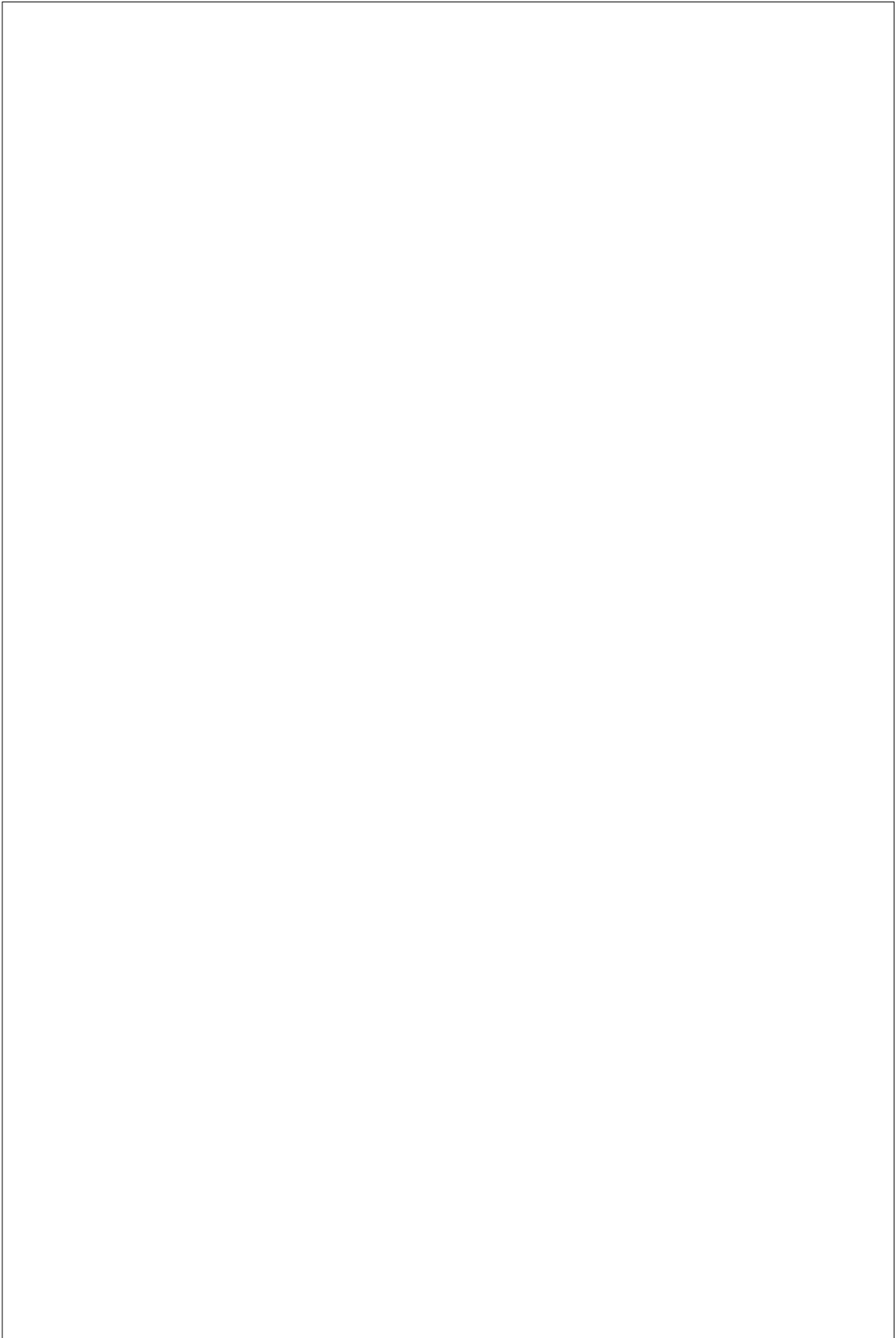
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## **PART TWO**

**COUNTRY REPORTS ON COPING WITH RESTRICTIVE  
POLICIES AND MAINTAINING COMPETITIVENESS  
IN THE TEXTILE AND CLOTHING INDUSTRY**



# I. Bangladesh\*

## Introduction

Textiles play an important role in the economic life of Bangladesh. The sector, in addition to meeting the demand of fabrics and apparel domestically, contributes significantly to the textiles and clothing (T&C) export trade. At present, more than 78 per cent of the country's export earnings come from T&C. The sector provides employment to a workforce of 4.5 million and contributes 40 per cent value addition to the manufacturing sector. Textiles as a whole play the most significant role in the alleviation of poverty, provision of employment to rural women and economic empowerment of women. The sector provides 200,000 jobs in the waste recycling industry related to ready-made garments (RMG), contributes 10.5 per cent to GDP, provides indirect employment for an 800,000-workforce in accessories industries related to T&C and generates a huge client base for banking, insurance, shipping, transport, hotel, cosmetics, toiletries and related economic activities.

Bangladesh entered the international T&C trade in the early part of the 1980s, when the Government opted for a market-oriented economy. Investments in the primary textile sector (PTS), i.e., spinning, weaving and dyeing-printing-finishing (textile product processors), started at the same time as the expansion and entry of ready-made garments (apparels and clothing) into international markets. When Bangladesh entered the global T&C markets, export earnings were insignificant. For example, during fiscal year 1981/82 (July-June), the share of T&C in total export earnings was 1.1 per cent (comprising only woven garments). Over the years, that share increased to 78 per cent of the total earnings, to reach US\$ 8.1 billion during fiscal 2005/06.

Immediately after liberation in 1972, the Government opted for a socialistic economic policy by nationalizing all big industries. At that time, all large textile mills were nationalized. However, when the Government opted for a market-oriented economic policy, the textile mills were gradually handed over to the private sector in phases.

Ministry of Textiles records show that as of 2006 there were 23 textile mills under Government ownership with 400,000 installed spindles and a total capacity of 40 million kg of yarn production. However, most of the mills are non-functional and the machinery is obsolete. Although the performance of public sector mills has slowly declined, private sector mills have flourished under the supportive policy of successive governments. Table 1 provides an overview of the growth pattern of primary textile mills.

Since the T&C sector comprises spinning, weaving, dyeing-printing-finishing, handlooms and power looms, export-oriented ready-made garment units and other ancillary textile units table 2 provides a comprehensive idea about the size and contribution of each sector in the national economy:

There are different types of mills in the overall T&C structure of Bangladesh. Table 3 shows the size and ownership of mills and the average number of employees (three shifts).

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\* Prepared by Mr Towfique G. K .M. Hassan, Secretary-General, Bangladesh Textile Manufacturer Association.

**Table 1. Growth pattern of primary textile mills in Bangladesh**

Year	No. of mills	Spindle capacity	Growth in spindle capacity compared with previous year (%)
1983	21	511 084	—
1992	49	992 938	—
1994	76	1 423 366	43.34
1995	84	1 701 823	19.56
2000	116	2 289 280	34.51
2001	145	2 352 310	02.75
2002	163	3 390 026	44.11
2003	174	3 419 504	0.87
2004	197	3 931 624	4.90
2005	230	4 937 353	25.58
2006	260	5 500 000	11.39

Source: Bangladesh Textile Manufacturers Association.

**Table 2. Structure of Bangladesh textiles and clothing sector, 2006**

Subsector	No. of units	Installed machine capacity	Production capacity	Manpower
<b>Textile spinning</b>				
(Cotton yarn) (nationalized mills)	23	490,000 spindles	40 million kg	10 000
Textile spinning: private sector	260	5.5 million spindles	1 000 million kg	390 000
<b>Subtotal</b>	<b>283</b>	<b>5.99 million spindles</b>	<b>1 040 million kg</b>	<b>400 000</b>
Silk yarn	—	2,888 reeling	0.060 million kg	—
<b>Weaving</b>	<b>356</b>	<b>22,000 SL/SLL</b>	<b>900 million metres</b>	<b>80 000</b>
(Large mill – grey fabrics) Private sector				
<b>Spl. textile and power loom</b>				
(a) Public sector	1	40 looms	300 000 metres	150
(b) Private sector	1 065	22 960 SL/SLL	300 million metres	42 750
<b>Handlooms (GF/F)</b>	<b>148 342</b>	<b>498 000 handlooms</b>	<b>837 million metres</b>	<b>1 020 000</b>
Knitting, knit dyeing (GF):				
(a) Export-oriented	700	10 000 knit/dye/machines	1 650 million metres	300 000
(b) Local market	2 000	5 000 knitting machines	450 million metres	24 100
<b>Subtotal</b>	<b>2 700</b>	<b>15 000 knit/dye/machines</b>	<b>2,100 million metres</b>	<b>324 100</b>
<b>Dyeing and finishing (FF):</b>				
(a) Semi-mechanized	178	—	107 million metres	10 000
(b) Mechanized	115	—	850 million metres	23 000
<b>Export-oriented RMG</b>	<b>4 000</b>	—	200 million dozen	2 000 000
<b>Others:</b>	—	—	—	<b>600 000</b>
Textiles Trade Association, buying houses, sewing thread, local agents, luggage mfg etc.				
Spd = Spindles		looms	RMG = Ready-made garments	
Rtr = Rotor		kg = Kilograms	FF = Finished fabric	
SL = Shuttle looms		Knit/M = Knitting machine	GF = Grey fabric	
SLL = Shuttleless				

**Table 3. Ownership and size of mills**

Type of mill	Ownership structure	Average number of employees
(a) Spinning mills, 97%	Private Ltd Co.	1000
(b) Spinning mills, 3%	Public Ltd Co.	1500
(a) Weaving mills (SMEs), 70%	Proprietorship	175 to 185
(b) Weaving mills, 30%	Private Ltd Co.	225
Specialized textile and power looms (SMEs).	Proprietorship	40
Handlooms (Small)	Proprietorship	5 to 6
Knitting, knit dyeing (SMEs) (GF)	Proprietorship	110 to 120
Dyeing and finishing (finished fabrics; SMEs)	Proprietorship	110
Export Oriented RMG Units	Private Ltd Co.	500
Others (Trade Association, buying houses, sewing thread, local agents etc.).	Private Ltd Co.	-15

Source: Bangladesh Textile Manufacturers Association.

### A. Trends in Bangladesh production and exports by markets

Since the T&C sector occupies a very important position in Bangladesh's economic life, significant support has been provided by the Government in meeting the challenges of globalization as well as the negative effect of the abolition of the Multi-Fibre Arrangement (MFA). The Government initiated some positive efforts in enhancing the competitiveness of T&C in order to put the sector on a par with competing countries. As a result, a large investment has been made during the past few years, mainly in spinning (see table 1). With the increase in investment, the level of productivity has also risen, providing support for local exported-oriented RMG units in competing on international markets. Tables 4 to 11 provide an overall view of production, export trade, destinations etc.

**Table 4. Annual production of yarn and fabrics**

Year	Yarn production (million kg)			Fabric production (million metres)		
	Public sector	Private sector	Total	Public sector	Private sector	Total
1995/96	15.90	157.01	172.91	2.79	1 262.43	1 265.22
2000/01	15.81	186.76	271.57	–	1 845.00	1 845.00
2001/02	15.39	204.81	298.50	–	2 050.00	2 050.00
2002/03	9.35	330.65	340.00	–	2 200.00	2 200.00
2003/04	9.70	370.30	380.00	–	2 750.00	2 750.00
2004/05	9.48	440.52	450.00	–	3 100.00	3 100.00
2005/06	8.00	530.00	538.00	–	3 500.00	3 500.00

Source: Ministry of Textiles and Jute.

It is clear from table 4 that the performance of the public sector is gradually going down in terms of yarn production and total stoppage in fabric production.

An in-depth analysis of table 5 shows that during recent years exports of knitwear items have almost overtaken woven garments. Although woven garments, knitwear, home textiles and textile fabrics all achieved persistent growth during the past five years, the growth rate in knitwear has been phenomenal compared with the other categories. This growth pattern has been attributed to the expanding domestic availability of raw materials due to expansion of the spinning subsector as well as an active marketing approach by entrepreneurs, supported by a favourable policy package.

**Table 5. Exports of textile products**

(Unit: US\$ million)

<b>Year</b> <b>Item</b>	<b>2005/06</b>	<b>2004/05</b>	<b>2003/04</b>	<b>2002/03</b>	<b>2001/02</b>
Knit woven	3 816.98	2 819.47	2 148.02	1 653.83	1 459.25
Woven garment	4 083.82	3 598.20	3 538.07	3 258.27	3 124.56
Home textile	165.25	156.14	135.49	71.38	75.58
Textile fabrics	36.88	16.96	27.15	21.70	48.08

Source: Bangladesh export statistics, Bangladesh Export Promotion Bureau.

Table 6 shows that in woven garments, trousers rank first in terms of export value. Although woven shirts are in second place, their growth rate is not worth mentioning when compared with the exports during the past five years. Jackets have shown a fluctuating trend.

**Table 6. Export trend of woven garments**

(Unit: US\$ million)

<b>Year</b> <b>Item</b>	<b>2005/06</b>	<b>2004/05</b>	<b>2003/04</b>	<b>2002/03</b>	<b>2001/02</b>
Shirts	1 056.87	1 053.34	1 116.57	1 019.88	871.22
Trousers	2 165.25	1 667.72	1 334.85	643.66	636.61
Jackets	389.52	430.28	364.78	464.51	412.34
Others	472.17	446.87	721.86	1 130.23	1 204.39

Source: Bangladesh export statistics, Bangladesh Export Promotion Bureau.

Table 7 indicates that knitwear items have achieved a continuous steady growth. In fact, items such as T-shirts, sweaters and other items have enjoyed constant growth.

Table 8 provides an analysis of knitwear exports in terms of destination/market for 2004/05 and 2003/04. Compared with figures for the United States, Canada and Mexico markets, imports of knitwear items by the European Union have been very high

**Table 7. Export trends for knitwear***(Unit: US\$ million)*

<b>Year</b> <b>Item</b>	<b>2005/06</b>	<b>2004/05</b>	<b>2003/04</b>	<b>2002/03</b>	<b>2001/02</b>
T-shirts	1 781.15	1 349.71	1 062.11	642.62	546.28
Sweaters	1 042.61	893.12	616.31	578.38	517.83
Others	992.85	576.63	469.60	432.83	395.14

Source: Bangladesh export statistics, Bangladesh Export Promotion Bureau

**Table 8. Knitwear exports by destination**

<b>Year</b> <b>Country/ area</b>	<b>Value (US\$ million)</b>		<b>Percentage of market share, by destination (%)</b>	
	<b>2004/05</b>	<b>2003/04</b>	<b>2004/05</b>	<b>2003/04</b>
United States	401.061	236.543	14.22	11.01
Canada	118.652	70.788	4.21	3.30
European Union	2 232.459	1 789.995	79.18	83.33
Mexico	6.109	5.499	0.22	0.26
Others	61.191	45.197	2.17	2.10
<b>Total</b>	<b>2 819.472</b>	<b>2 148.022</b>	<b>100.00</b>	<b>100.00</b>

Source: Bangladesh export statistics, Bangladesh Export Promotion Bureau.

(79.18 per cent and 83.33 per cent, respectively, for 2004/05 and 2003/04). In comparison, the United States, Canada and Mexico collectively absorbed a total of 18.65 per cent and 14.57 per cent, respectively, in the same period. However, in both regions there was a significant upward trend.

Table 9 shows exports of woven items by destination. The data reflect the export figures of 2004/05 and 2003/04. In this regard, the European Union ranks first but the market share is much below that which has been achieved for knitwear (43.30 per cent and 53.04 per cent, respectively, during 2004/05 and 2003/04). In comparison, the United States, Canada and Mexico occupied first place in 2004/05 with 50.57 per cent and second position in 2003/04 with 44.84 per cent. However, in both regions there has been overall growth.

Table 10 shows that exports of home textiles (a new item added to Bangladesh's textile export basket) have been growing. Most of the products under this heading are for the European Union market. The European Union market share was 83.12 per cent and 77.50 per cent, respectively in 2004/05 and 2004/04. This is due to the presence of European Union multinationals such as IKEA having buying offices in Dhaka. The American region imported around 14.54 per cent and 18.88 per cent, respectively, during 2004/05 and 2003/04, respectively.

**Table 9. Woven garment exports by destination**

Country/ area \ Year	Value (US\$ million)		Percentage of market share, by destination (%)	
	2004/05	2003/04	2004/05	2003/04
United States	1 622.902	1 391.637	45.10	39.34
Canada	188.601	185.912	5.24	5.25
European Union	1 704.855	1 878.243	47.39	53.09
Mexico	8.316	8.986	0.23	0.25
Others	73.531	73.288	2.04	2.07
<b>Total</b>	<b>3 598.205</b>	<b>3 538.066</b>	<b>100.00</b>	<b>100.00</b>

Source: Bangladesh export statistics, Bangladesh Export Promotion Bureau.

**Table 10. Home textiles export trends**

Country/ area \ Year	Value (US\$ million)		Percentage of market share, by destination (%)	
	2004/05	2003/04	2004/05	2003/04
United States	12.923	13.761	8.28	10.16
Canada	9.822	11.812	6.29	8.72
European Union	129.789	105.023	83.12	77.50
Others	3.604	4.899	2.31	3.62
<b>Total</b>	<b>156.138</b>	<b>135.495</b>	<b>100.00</b>	<b>100.00</b>

Source: Bangladesh export statistics, Bangladesh Export Promotion Bureau.

Table 11 provides an interesting picture. The major buyers of textile fabrics are local exporters of ready-made garments. They buy the fabrics either to meet export orders or to use as pocketing material. In that regard, local consumption amounted

**Table 11. Textile fabric exports trends**

Country/ area \ Year	Value (US\$ million)		Percentage of market share, by destination (%)	
	2004/05	2003/04	2004/05	2003/04
Domestic sales	7.099	6.622	41.83	24.39
United States	3.526	13.485	20.78	49.67
European Union	2.391	4.041	14.10	14.89
Canada	0.126	0.650	0.74	2.39
Mexico	0.110	0.800	0.65	2.95
Others	3.718	1.549	21.90	5.71
<b>Total</b>	<b>16.961</b>	<b>27.147</b>	<b>100.00</b>	<b>100.00</b>

Source: Bangladesh export statistics.



to 41.83 per cent and 29.39 per cent, respectively of the total market share of textile fabrics during 2004/05 and 2003/04. On the other hand, the American region accounted for 22.17 per cent and 55.01 per cent, respectively, during 2004/05 and 2003/04. The European Union market consumed 14.10 per cent and 14.89 per cent of the fabric, respectively, during 2004/05 and 2003/04. In both the American and European Union region markets, the share declined in 2004/05 compared with 2003/04.

## **B. General export trends for some new products**

### **1. Denim trousers**

Bangladesh emerged as the number one supplier of denim clothes to the European market, commanding a 27 per cent share of import during the first half of 2006. Exporters said that increasing availability of locally-produced denim fabrics and the enhanced ability to offer the most competitive prices helped Bangladesh gain a greater market share. Restrictions in the European Union on certain types of apparel from some Asian countries have also benefited the Bangladesh denim sector to a great extent.

In terms of earnings, however, Bangladesh ranked third because of the exporters' concentration on low-cost dresses. The latest compilation of European Union data shows that, during January-June 2006, Bangladeshi apparel manufacturers shipped about 24 million pairs of denim jeans in the men's and boys category to European importers. Export volume during the same period increased by 26.15 per cent and stood at the top with 26.76 per cent of total European imports of denims. On average, Bangladeshi denim exporters charged a € 4.03 unit price for men's and boys' jeans, whereas the global average was € 7.38 per unit.

In the women's and girls' denim category, Bangladeshi exporters saw the volume increase by more than 91 per cent to about 17 million pairs during January-June 2006. Bangladesh also topped the list in this category with 18.59 per cent of the European Union market share, which was more than double the share for the previous year. However, Bangladesh lagged behind in terms of earnings from women's and girls' denim clothes. Local capacity for producing denim fabrics has expanded significantly in recent years, which has helped apparel manufacturers to cater to the demand from European buyers.

### **2. Diversity in sweater exports**

The country's sweater exporters have recently earned an encouraging response from buyers in the European Union by exporting high-value woolen products made of cashmere, the very fine, soft fabric made from the hair of Kashmiri goats.

Bangladesh's exporters have doubled their European Union market share in recent years. The export growth in high-value cashmere items indicates a very encouraging diversity in the sweater subsector. Exports of cashmere items from Bangladesh grew by 108 per cent during January-August 2006. Bangladesh has emerged as the third-largest cashmere sweater supplier to the European Union. Currently, the market share of Bangladesh-made cashmere sweaters is 12.2 per cent while China and Hong Kong, China, jointly hold 39 per cent, followed by Madagascar at 17 per cent.

Bangladeshi manufacturers mainly depend on wool of Mongolian origin. Since cashmere sweaters are made of expensive raw materials and need sophistication in the production process, production is a risk that exporters are afraid to take. If entrepreneurs want to capitalize on the demand for this product, policy support will be needed.

The emerging trend in the global sweater market is apparel made of wool and natural fibres. If the industry can exploit the market and gain high-value business, it may emerge as the ultimate winner.

### 3. Demand-supply gap in textile products and investment opportunities in the primary textile sector

With the continuous development and penetration in the textile market as well as diversification in products, there has been a significant demand for fabrics and yarn during the past five years. However, domestic fabric manufacturing mills cannot cope with the demand. As such, a vast scope exists for investment in fabric production (tables 12 to 15).

**Table 12. Total demand-production gap between fabrics for domestic and export-oriented RMG Units**

*(Unit: Million metres)*

Financial year	Demand for fabrics		Total	Domestic production	Demand-production gap
	Domestic	Export-oriented RMG			
2000/01	1 595	2 246	3 841	1 800	2 041
2001/02	1 618	2 568	4 186	2 050	2 136
2002/03	1 754	2 779	4 533	2 280	2 253
2003/04	1 865	3 323	5 188	2 750	2 438
2004/05	1 960	3 880	5 840	3 200	2 640

Source: Ministry of Textiles and Jute.

**Table 13. Projected demand for fabrics for domestic and export-oriented RMG units, 2004/05 to 2008/09**

(Unit: Million metres)

Year	Growth rate	Projected demand for fabrics			Grand total	
		Domestic market (growth rate 4.75%) <sup>a</sup>	Exports through RMG			
			Knitwear <sup>b</sup>	Woven (growth rate 3%) <sup>c</sup>		Total
2004/05 (Base year)		1 960	2 140	1 740	3 880	5 840
Projected						
2005/06		2 050	2 675	1 790	4 465	6 515
2006/07		2 150	3 210	1 845	5 055	7 205
2007/08		2 252	3 720	1 900	5 620	7 872
2008/09		2 360	4 200	1 960	6 160	8 520

Source: Ministry of Textiles and Jute, Production Planning Report.

Notes:

<sup>a</sup> Projected demand for fabrics for domestic consumption assumed to increase at 4.75 per cent per annum up to 2009/10.

<sup>b</sup> Projected knitwear exports assumed to increase at a declining rate from 2004/05 to 2009/10 at 25 per cent, 20 per cent, 16 per cent and 13 per cent, respectively, per year.

<sup>c</sup> Projected woven garments exports assumed to increase at an average rate of 3 per cent per year from 2004/05 to 2008/09.

**Table 14. Yarn demand-production gap**

Description	Base year, 2003/04			Projection for 2008/09		
	Domestic	Export	Total	Domestic	Export	Total
(i) Domestic production/ production plan for fabrics in million metres (as a percentage of total demand)	1 013 (54%)	1 737 (52%)	2 750 (53%)	1 764 (75%)	3 013 (70%)	4 777 (72%)
(ii) Yarn requirement (million kg).	168	290	458	290	500	790
(iii) Actual production/ production plan	—	—	380 (82%)	—	—	687 (87%)
(iv) (-) Production with existing facilities (million kg)	—	—	380	—	—	380
(v) Balance of yarn to be produced by creation of new capacity (iii-iv) (million kg)	—	—	—	—	—	307

Source: Ministry of Textiles and Jute.

**Table 15. Estimated Investment Requirements in Primary Textile Sector by 2008/09***(Unit: US\$ million)*

Type of textile industry	Volume of yarn and fabrics to be produced	No. of units	Estimated cost per unit	Total estimated cost
Spinning unit (25 000) spindles/unit with 4.6 million kg capacity each)	300 million kg	65	11.50	747.50
Weaving (120 shuttleless looms/unit with 13 million metres capacity each)	1 010 million metres	77	7.25	558.25
Knitting and knit processing (1 725 metric tons per year)	1 010 million metres (168 000 metric tons)	97	2.90	281.30
Woven fabric processing (20 million metres each, annual capacity per year)	1 010 million metres	50	8.70	435.00
Total				2 022.05

### **C. Major policy options initiated in line with the changed multilateral regime under WTO**

Following the establishment of WTO and the implementation of the Uruguay Round agreement, the following measures have been taken in response to trade liberalization policy, with regard to the T&C subsector of Bangladesh:

- (a) In line with the ATC provisions, the Unilateral Quantitative Restrictions on imports of textile products were withdrawn by notifications issued in 1995, 1998 and 2002.
- (b) The customs duty on imports of textile fibres, yarn and fabrics in 2001 were at five levels – zero per cent, 5 per cent, 15 per cent, 25 per cent and 37.5 per cent. This has been reduced to four levels – zero per cent, 5 per cent, 12 per cent and 25 per cent.
- (c) The South Asian Free Trade Area (SAFTA) came into force on 1 January 2006. The Tariff Liberation Programme (TLP) commenced on 1 July 2006 with a road map for tariff reduction in a phased manner such as by non-LDCs to LDCs (December 2008), non-LDCs to non-LDCs (December 2014) and LDCs to all contracting States (December 2015).
- (d) Import duty on textile machinery, most spares and accessories, dyes and chemicals, and raw cotton have been reduced to zero.
- (e) Child labour in the T&C industry has been eradicated.
- (f) Various compliance issues are gradually being addressed by manufacturers and exporters of T&C products.
- (g) Social accountability and labour safeguard measures are gradually being developed.

- (h) Sanitary and phytosanitary measures are being developed.

Further, Bangladesh generally follows internationally recognized labelling. In this regard, the Product Labelling Policy, 2006 was adopted by the Government of Bangladesh. Recognized ISO standards are being developed and implemented. To ensure marketing of quality products of standard specification, the registration and prior approval of labels for certain products of T&C have been made compulsory.

Imports of T&C products are open, but it requires registration from Chief Controller of Import and Export in order to keep track of the importers as well as volume of imports of different products. To be granted import registration the following major documents are required:

- (a) A trade licence;
- (b) Membership Certificate from a Chamber of Commerce or related trade association;
- (c) Tax identification number;
- (d) Bank Solvency Certificate.

In addition, conformity with standard or technical regulation on T&C through laboratory tests by a conformity assessment body has been made essential for international trade.

Bangladesh is trying to develop an internationally acceptable testing laboratory for T&C products. The European Union and UNIDO are providing technical assistance in developing and setting up such a laboratory. In this regard, the Government has already established the Bangladesh Accreditation Board and has been trying to upgrade the level of international standards being followed and to become a signatory of International Laboratory Accreditation Cooperation.

#### **D. Policy support to meet post-MFA challenges**

With the phasing out of MFA, trade in T&C is facing serious challenges from newly industrialized countries. Different competing countries are providing policy support as well as financial support in order to increase the competitiveness of their T&C industries. To compete on an equal footing, the Government of Bangladesh has initiated programmes for not only developing and expanding the sector overall, but also to increase competitiveness so that Bangladeshi entrepreneurs and exporters will be able to compete with developing countries as well as with countries of Southeast Asia.

Considering the importance of the primary textile sector in the national economy, in July 2005 the Government formed a high-level inter-ministerial taskforce, headed by a former Minister for Textiles and Jute, to assess and evaluate the present status and make recommendations for the development and expansion of PTS.

Following meetings with all stakeholders, the taskforce report made 12 recommendations for implementation. The report was approved by the former Government. The recommendations, which form the core policy guideline for overall development of the T&C sector for the next 10 years, are that:

- (a) The debt-equity ratio should be fixed at 70:30 or any other favourable rate;
- (b) The weaving and dyeing-finishing subsector should be given an extra boost and priority while considering bank loans for investments;
- (c) The difference between export proceeds conversion be restricted within the maximum range of 50 paisa between the Bangladesh taka and the United States dollar;
- (d) Provision be made for bank loans at a lower rate of interest. The interest on investments in the textile sector should be fixed at 9 per cent, both by nationalized and private sector banks. At present, nationalized banks are lending at 9 per cent while private sector banks charge 14 per cent;
- (e) In considering textiles as a “thrust sector”, all imported spares and all imported dyes, chemicals and sizing materials used in the textile sector be made duty-free and tax-free;
- (f) The rate of cash assistance in lieu of duty drawbacks and bond facilities be increased to 10 per cent;
- (g) In order to meet the scarcity of technical personnel in the textile sector, more technical and vocational technical institutes be set up, and the status of the Bangladesh College of Textile Technology be upgraded to Textile University. In addition, Textile Faculties should be established at all technical universities, and all technical schools, colleges and vocational institutes should include textiles as a subject in their curricula;
- (h) A High-tech Park, Garment Villages, API and EPZ with necessary infrastructural facilities for setting up textile industries should be established on a priority basis;
- (i) The tax holiday scheme be continued;
- (j) In order to protect the environment, the establishment of effluent treatment plants should be encouraged by providing machinery and other equipment as well as spare parts on a duty-free basis;
- (k) A committee be set up with representatives from the Ministry of Local Government, Ministry of Industry, Ministry of Textiles and Jute, Ministry of Commerce, the Board of Investment, various local authority bodies and the Bangladesh Textile Manufacturers Association for clustering industrial regions;
- (l) In considering the textile sector as a “thrust sector”, the electricity, gas, cost, freight and insurance sectors be left out of the VAT net.

Once the recommendations have been implemented (in phases, if necessary, the textile industry will be able to become sustainable, develop, expand and play its role in the economic development of Bangladesh.

## II. China\*

### Introduction

On 1 January 2005, the elimination of textile quotas opened a new era for the global textile trade. Before and immediately after the elimination, the textile trade in China was unstable, with many restrictive cases against Chinese products. The Government of China and the textile industry have made every effort to establish a healthy global environment for the development of the country's textile industry. The situation in 2006 was satisfactory.

#### A. Chinese textile industry in 2006

The textile industry in China is developing rapidly. In some areas, the industry is forming so-called textile cities that occupy more than 500,000 m<sup>2</sup>.

The year 2006 was a good beginning for China's eleventh Five-Year Plan, which witnessed a 10.7 per cent growth in GDP while national retail sales growth amounted to 13.7 per cent. The textile industry also experienced stable development.

#### 1. Production

In 2006, the production of the main T&C categories grew steadily (see table).

**Production of main T&C categories in 2006**

Item	Unit	Production in 2006	Growth rate (%)
Yarn	1 000 tons	17 222.4	19.86
Fabric	1 000 m <sup>2</sup>	43 787 000	14.84
Apparel	1 000 pieces	17 001 910	11.86
Synthetic fibres	1 000 tons	20 255	12.94

Source: National Statistics Bureau.

In 2006, the number of sizable textile and clothing enterprises totalled to 39,400, with a growth rate of 9.57 per cent. Sizable enterprises refer to those with annual sales up to Y 5 million.

Textile and clothing products play very import role in increasing employment. In 2006, employment in sizable enterprises in China grew by 3.95 per cent. The net value of their fixed assets increased by 12.53 per cent. Sales of sizable enterprises amounted

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to Y 2,450 billion, with a growth rate of 21.6 per cent while total profit amounted to Y 88.3 billion, with a growth rate of 27.96 per cent.

Scientific and technological progress is moving at a significantly fast pace. From 2001 to 2006, imports of advanced textile equipment amounted to more than US\$ 20 billion. In addition, domestically produced textile machinery has improved considerably, with main product lines already at an advanced international benchmark compared to the end of the twentieth century. A wide variety of domestic proprietary equipment technology, fibre technology and new products are in commercialized production for widespread usage. In fact, the development of Chinese textile and apparel brands is flourishing, and is gaining public attention in various sectors.

The market reforms in China are being continuously improved in order to inject more vitality into the T&C industry, as shown by the fact that of the paid-in capital of sizable enterprises, non-government capital accounted for 92.5 per cent in 2005. Of that figure, foreign capital represented 36 per cent. In terms of fixed assets investment in 2006, the funds raised by enterprises themselves accounted for 74.48 per cent, with domestic bank loans accounting for only 10.04 per cent. The domestic capital market is steadily maturing, and the two most important raw materials – cotton and purified terephthalic acid (PTA)- are both listed on the futures market in China.

## 2. Domestic market

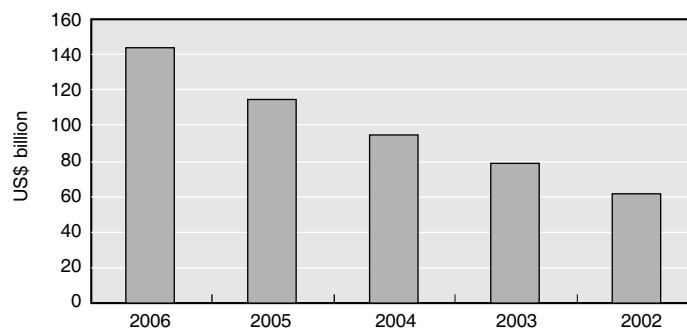
Apparel consumption increased by 19.2 per cent, while fibre consumption reached an average of 14 kg per head of the population in China.

In terms of total sales, the domestic market share increased from 68 per cent in 2000 to 73 per cent in 2006.

## 3. Exports

Textile and clothing exports from China have steadily increased in the past few years. In 2006, China's textile and apparel exports amounted to US\$ 144 billion, 25 per cent higher than in the previous year (see figure).

**Textile and apparel exports from China**



Source: Chinese Customs data.



In 2006, the value of clothing exports amounted to US\$ 95 billion, representing a growth rate of 28.9 per cent and accounting for 66 per cent of total T&C exports. Yarn and fabric exports totalled US\$ 49 billion, representing a growth rate of 17.7 per cent and accounting for 34 per cent of total T&C exports.

According to statistical data based on comparable prices, T&C exports in 2006 grew by 14 per cent. The comprehensive unit price of T&C exports rose by 10.14 per cent.

In 2006, Chinese T&C exports to the European Union and the United States totalled US\$ 22.3 billion and US\$ 21.9 billion, respectively. The growth rates were 21.1 per cent and 16.7 per cent, respectively.

#### **4. International cooperation**

With accession to WTO, the expanded international cooperation provides the Chinese textile industry with a favourable external environment for its development. One indication of this positive change is the FDI inflow into the industry, which amounted to US\$ 53.3 billion between 2001 and 2005.

Of total export value in 2006, exports by foreign companies and by companies with investment from Hong Kong, China, Macao, China, and Taiwan Province of China accounted for a one-third share.

At the same time imports of cotton, monomers (raw material) for man-made fibre, textile machinery, textile chemicals and dyestuffs increased by 413 per cent, 179 per cent, 98 per cent and 160 per cent, respectively. Total import value increased to US\$ 32 billion.

China has stayed loyal to its commitment to WTO on opening its market to foreign products. A large number of international brands have entered China, which has also facilitated the growth of domestically produced brands. In fact, the rapid development of Chinese brands has encouraged a change in the growth of the T&C industry and some Chinese brands have already found acceptance in international markets.

In addition, many world-renowned textile machinery companies have set up manufacturing facilities in China.

#### **B. Restrictive measures and domestic policies**

The Chinese textile industry is one the domestic industries which have been fully market-oriented for quite long time. The Chinese Government has long insisted on the liberalization and commercialization of the textile industry, the gradual removal of interference and the promotion of self-regulation within the industry.

The Chinese market is open globally. After accession to WTO, China reduced import duties. The duty on T&C imports has been reduced to 11.4 per cent, which is even lower than that of some developed countries.

Prior to 1 July 2004, companies in China needed to acquire a permit from the Government in order to export. Not all applicant companies were granted an export permit and many manufacturers had to go through international trade companies in order to meet their export orders.

The new foreign trade law, which came into effect on 1 July 2004, stipulates that all legal entities, whether organizations or individuals, can engage in foreign trade after registering. The right to undertake international trade is open to all companies and persons.

On 1 January 2005, state trading in silk was discontinued, and export quotas and licensing for seven cocoon and silk products were abolished.

China's T&C exports were tightly restricted for many years under international trade agreements. Under the ATC framework, exports of Chinese T&C products were subject to quantity restrictions imposed by other countries (i.e., Canada, Turkey and the United States) and the European Union until 1 January 2005.

Upon China's accession to WTO, the quota limit on Chinese T&C exports to Canada, Turkey, the United States and the European Union were gradually removed. On 1 January 2005, the old quota system imposed on Chinese products was terminated. However, the restrictions did not end there. Other restrictive measures on Chinese products kept emerging.

In order to stabilize the textile trading environment in the transition period before and after quota elimination, and to develop together with other countries on the basis of mutual benefit, China introduced the following self-regulation measures on T&C exports:

- (a) On 1 January 2004, China started to reform its VAT rebate system for exports, including the reduction of VAT rebate rates for most T&C exports from 17 per cent to 13 per cent;
- (b) On 15 September 2006, China reduced the VAT rebate rate for textile products further from 13 per cent to 11 per cent;
- (c) On 1 January 2005, China imposed export taxes on 148 T&C products. The taxes were Y 0.2 or Y 0.3 per piece, or Y 0.5 per kilogram;
- (d) In May and July of 2005, export tax rates and the list of products subject to such tax were modified several times. From 1 August 2005, export taxes were levied on 51 textile and clothing products at rates of Y 0.2, Y 0.3, Y 1, Y 3 or Y 4 per piece. However, this measure had been cancelled by the end of 2005;
- (e) An automatic export licensing system was adopted for T&C exports on 1 March 2005, in order to collect information of exports of some key products. Under the system, Ministry of Commerce (MOFCOM) compiled a "First Batch of Products under Automatic Export Licensing Catalogue". Exporters were able to obtain an export licence from MOFCOM or its authorized agencies automatically once they had export contracts. However, this requirement was terminated in July 2005 and replaced by other measures;
- (f) A new exchange rate mechanism was established and the value of the yuan renminbi was allowed to float.

Under the China-European Union and China-United States Memoranda of Understanding, which are now being implemented and which control some important categories of Chinese T&C products, a new domestic administrative system has been established:

- (a) On 19 June 2005, following the signing of the above Memoranda, the Government of China issued "Interim Measures for the Administration of Textile Exports (Trial Implementation)". These measures were later replaced by a revised version of the Interim Measures, effective from 22 September 2005, and modified again in September 2006;
- (b) In the case of export products listed in the "First Batch of Products under Automatic Export Licensing Catalogue", part of the quotas will be assigned through a bidding system, while the remaining portion will be allocated to the companies concerned. Bidding and allocation is based on each exporter's share in the total export value of the respective categories in the previous year.

Currently, Chinese T&C products still face different types of restrictive measures in some countries/regions. Brazil, South Africa, Turkey and the United States as well as the European Union impose quantity restrictions on Chinese T&C products, while some anti-dumping and specific safeguard measures are in pipeline.

### **C. Development goals of the Chinese T&C industry**

The development guidelines and main goal for the future of China's textile industry are to implement a science-led approach to bringing about an improvement in the economic growth mode, and to build up an innovative, resource-saving, environmentally friendly industry. Greater efforts are to be made to increase the contribution by science and technology as well as brands to the economic growth of the textile industry by:

- (a) Introducing an overall brand strategy for boosting brand sophistication, sharpening the competitive edge of domestic brands in domestic and international markets, and strengthening exchanges and cooperation with international brands;
- (b) Expanding and improving energy saving processes, reducing energy consumption and effluents, and increasing environmental protection in the textile industry in order to meet the various restrictive targets stipulated in the eleventh Five-Year Plan;
- (c) Strengthening industrial self-discipline and regulation in order to build up the industry in harmony with the environment. This includes introducing an improved service system for quality control, enhanced IPR protection and a system of social responsibility (CSC9000T);
- (d) To maintain the policy of collaboration with the aim of achieving a win-win effect through broad bilateral and multilateral cooperation in the areas of science and technology, branding, trade and investment, exhibitions, training, information etc. as part of a joint endeavour to sustain and strengthen the new global textile economy.

### **III. Indonesia\***

#### **Introduction**

In Indonesia, which is facing economic problems such as a higher unemployment rate and poverty, the T&C industry plays a strategic role in absorbing a large number of labourers and in amassing foreign exchange reserves. The industry's contribution to GDP in 2006 reached 21 per cent from the manufacturing sector and 3 per cent of total earnings.

For the past 10 years, in addition to absorbing more than 2 million workers, the T&C sector has contributed US\$ 6.93 billion in foreign exchange annually, making Indonesia one of the world's major T&C exporting countries in the world, with a market share of 3.8 per cent.

For the past four years, Indonesian T&C exports have recorded an average growth rate of 8.4 per cent. In 2006, it was estimated that the country's total T&C exports amounted to US\$ 9.47 billion, an increase of 10 per cent compared with the previous year. Trends in textile export growth are influenced by external factors such as changing market structure in the United States and the European Union, the major markets for Indonesian T&C exports.

From mid-2005 and in 2006, the United States and the European Union imposed safeguard quotas on several T&C products from China. Indonesia has made use of this opportunity to increase its exports and has succeeded in becoming one of the major suppliers to the United States.

In the case of the European Union, Indonesian T&C exports had been declining due to the inability to compete with Chinese products. However, following the imposition of safeguard quotas against China in early 2006, Indonesia has been able to increase T&C exports to the European Union by 3 per cent. Market competition in the European Union is tougher as Indonesia has to compete against that region's neighbouring countries as well as African countries that have introduced preference tariffs.

In addition to establishing and developing an integrated industrial structure upstream and downstream, Indonesia has been supported by abundant local human resources in the middle management level. The Indonesian textile industry is varied, with a spun and hand-woven subsector that is labour- and capital-intensive, and a sophisticated mill subsector. The major subsectors include:

- (a) Man-made fibres;
- (b) Integrated textiles mill;
- (c) Cotton yarn;
- (d) Small-scale industry;
- (e) Handlooms.

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\* Prepared by Mr Usman Ade Sudradjat, Vice-Chairman, Indonesian Textile and Association (API).

In the case of the man-made fibre subsector, since the 1997 economic crisis development has stagnated. Indonesia has 26 polyester fibre and filament yarn producers and two rayon-viscose fibre producers. About 30,000 people are directly dependent on this sector for their livelihood. This sector produces about 1.1 million tons of yarn and fibre annually.

The integrated textile mill subsector includes spinning, weaving and dying-finishing.

## A. Situation of the Indonesian textile industry

### 1. Overview

The textile industry is one of a number of industries that have been given priority in the mid-term national priority plan, as detailed in Government Regulation No. 7 in 2005. There is a strong reason why this industry is being given development priority by the Government: exports of textile products have been able to earn high levels of foreign exchange. Indonesia's export potential in this sector has been developing year by year. Table 1 shows the textile industry's net export earnings and growth rates from 1996 to 2005, compared with import expenditures.

**Table 1. Net textile industry export earnings and growth rates compared with import expenditures, 1996-2005**

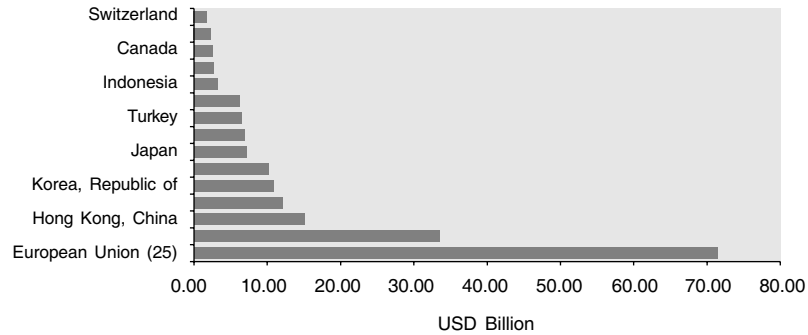
Year	Exports (US\$ billion)	Growth from previous year	Imports (US\$ billion)	Surplus (US\$ billion)
1996	6.57	–	2.58	4.00
1997	7.44	13.24	2.24	5.20
1998	7.43	(–0.13)	2.04	5.40
1999	7.28	(–2.01)	1.73	5.55
2000	8.28	15.11	2.28	6.09
2001	7.68	(–8.35)	2.44	5.24
2002	6.89	(–10.28)	1.83	5.06
2003	7.03	2.03	1.67	5.36
2004	7.75	10.24	1.72	6.03
2005	8.59	10.83	1.60	6.99

In 2004, Indonesia ranked eleventh among the top 15 textile exporting countries. This clearly shows that Indonesia is an important player in this industry.

### 2. Labour

During 2002-2005, the Indonesian textile and textile product industry was able to employ some 1.18 million workers annually (table 2). That figure did not including the small and medium-sized enterprises and cottage industries, which account for a further 600,000 workers. The T&C industry in Indonesia has been undergoing integrative development, from the raw material processing industry (fibres) and intermediate production (staple, filament, weaving, knitting) to finished products (garment and textile product).

**Figure I. World's 15 leading textile exporters, 2004**



Source: World Trade Organization, compiled by API.

**Table 2. Labour absorption by the textile industry**

Category	2002	2003	2004	2005
Direct (large-scale industry)	1 182 212	1 182 871	1 184 079	1 176 183
Direct (small-scale industry)	635 210	584 786	668 372	665 337
Indirect	3 634 844	3 535 314	3 704 902	3 683 040
<b>Total</b>	<b>5 452 266</b>	<b>5 302 971</b>	<b>5 557 353</b>	<b>5 524 560</b>

### 3. Investment

Total investment and the number of companies in the T&C sector, especially in 2005, was significant. Investment reached Rp 132.38 trillion and 2,656 work units. The additional investment came from abroad, increasing by 252 per cent from US\$ 165.5 million to US\$ 418.1 million in 2004. Most of the investment came from India and the Republic of Korea. India concentrated on the raw material processing subsector, whereas the Republic of Korea was involved in the finished product subsector. Meanwhile, local investment remained stagnant at Rp 70 billion.

However, during the past few years, T&C industry growth has been slowing because of numerous internal and external factors (especially the emergence of competitors such as Bangladesh, Sri Lanka and Viet Nam) and many free trade issues (the environment, social accountability etc.), which have influenced competitiveness. The main internal factors are transshipments, illegal imports and ageing machinery.

In general, the T&C industry in Indonesia is still undergoing repairs and development. The increased export value in 2005 was actually the trigger for the industry's takeoff. However, the Government did not respond well to this opportunity. The investment conditions, which actually were the main problem, led to stagnation in all areas of the country's T&C industry (table 3).

**Table 3. Indonesian textile and clothing industry highlights**

Category	Unit	Year					
		2001	2002	2003	2004	2005	2006
Number of companies	Units	2 665	2 646	2 654	2 661	n.a.	n.a.
Capital investment	Rp billion	130 823	132 101	132 355	132 362	n.a.	n.a.
Manpower	People	1 219 325	1 182 212	1 182 870	1 184 079	n.a.	n.a.
Exports	value US\$ million	7 645	6 888	7 033	7 647	8 603	9 470
	volume '000 tons	1 727	1 758	1 773	1 626	1 794	n.a.
Imports	value US\$ million	2 440	1 824	1 673	1 720	1 606	2 540
	volume '000 tons	1 265	1 048	962	880	851	n.a.
Net exports	value US\$ million	<b>5 205</b>	<b>5 064</b>	<b>5 360</b>	<b>5 929</b>	<b>6 997</b>	<b>6 930</b>
	volume '000 tons	462	710	811	764	943	n.a.

Source: BPS, Ministry of Industry, compiled by API.

## B. Synthetic fibres

In 2005, the fibre production subsector recorded an increase of 1.5 per cent compared with the previous year. However, this increase came from exports. The export value in 2005 amounted to some US\$ 244 billion (table 4). In 2004, the percentage of textile production exported was only 17.8 per cent, improving to 20.8 per cent in 2005. As a result, fibre demand for local use decreased.

**Table 4. Indonesian fibre industry highlights**

Category	Unit	Year				
		2001	2002	2003	2004	2005
Number of companies	Units	28	28	28	28	n.a.
Capital investment	Rp billion	11 640	11 929	11 929	11 929	n.a.
Number of machines	Units	28	29	29	n.a.	n.a.
Manpower	People	29 682	29 447	29 447	9 447	n.a.
Production capacity	'000 tons	1 039	1 049	1 049	1 077	n.a.
Production	value Rp billion	5 523	5 411	5 952	6 117	n.a.
	volume '000 tons	961	777	776	796	752
Export	value US\$ million	122	182	136	197	244
	volume '000 tons	132	208	198	152	192
Import	value US\$ million	1 336	921	949	955	801
	volume '000 tons	977	806	769	641	598

Source: BPS, Department of Industry compiled by API.

## 1. Labour

The fibre subsector absorbed about 9,447 workers in 2004, about 0.8 per cent of the total workforce employed by the T&C industry. However, this number increases if the synthetic fibre processing industry is taken into account. Some 27,000 workers are indirectly involved in synthetic fibre processing, most of whom are involved in the raw materials subsector and synthetic fibre marketing.

## 2. Competitiveness

In Indonesia, polyester and rayon fibre production is growing. Polyester filament consumption and exports from 1997 to 2003 is shown in table 5. However, because of strong competition and incapability of maintaining competitive prices, the synthetic fibre subsector is deteriorating in general. The obstacles faced by the synthetic fibre subsector include:

- (a) A declining ability to maintain competitive prices and the lack of development in the areas of machinery and related technology;
- (b) A low operating rate;
- (c) Global overcapacity;
- (d) Strong competition;
- (e) The increasing price of crude oil (raw material) and electricity (energy).

**Table 5. Polyester filament yarn**

Year	Consumption (tons)	Exports (tons)
1997	457 672	72 182
2000	270 246	302 541
2003	256 136	194 039

## 3. Opportunities

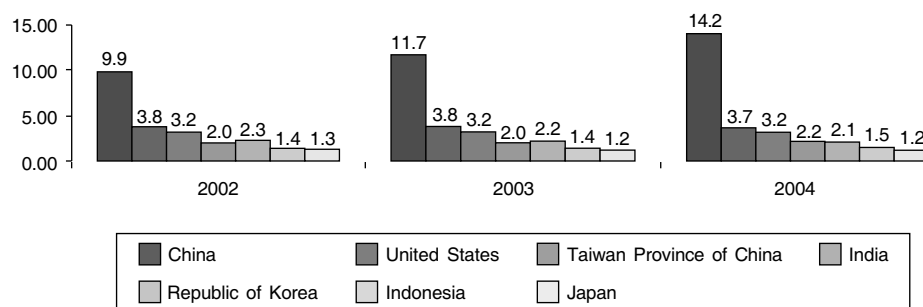
Actually, the synthetic fibre industry in Indonesia has good potential, as prospective export markets are quite promising. In Asia, Indonesian synthetic fibre products are preferred. In addition to being a major producer in the region, especially of rayon, the quality of the Indonesian product has proved to be a strong competitor to other Asian countries. This is underscored by the increasing export market for synthetic staple fibre by as much as 15.83 per cent, from US\$ 1.1 billion in 2004 to US\$ 1.2 million in 2005.

### C. Integrated textile mills

One of the strengths of Indonesia's T&C industry is that it is a completely integrated industry, from raw material processing until finishing (i.e., from the spinning industry until dyeing, finishing and clothing production). This is a key factor in ensuring that the Indonesian T&C industry is able to meet market demand and thus survive.



**Figure II. World production of man-made fibres  
(million tons)**



## 1. Labour

In terms of labour absorption (table 6), the textile mill subsector is the second largest in the T&C industry of Indonesia. Approximately 29 per cent of total labour is absorbed by the country's T&C industry. For that reason alone, the industry is vital.

**Table 6. Indonesian weaving, knitting and finishing subsectors**

Category	Unit	Year				
		2001	2002	2003	2004	2005
Number of companies	Units	1 046	1 040	1 043	1 044	n.a.
Capital investment	Rp billion	30 811	31 428	31 636	31 638	n.a.
Number of machines	Looms	230 261	234 866	248 957	n.a.	n.a.
	Knitting machines	41 312	41 312	41 312	n.a.	n.a.
Manpower	People	355 566	343 158	343 923	343 988	n.a.
Production capacity	'000 tons	1 992	2 011	1 724	1 777	n.a.
Production value	Rp billion	35 589	34 073	34 110	35 427	n.a.
	'000 tons	1 562	1 275	1 273	1 312	936
Exports	value US\$ million	1 661	1 404	1 523	1 420	1 537
	volume '000 tons	400	368	381	339	345
Imports	value US\$ million	752	588	459	433	406
	volume '000 tons	153	116	88	98	99

Source: BPS, Ministry of Industry, compiled by API.

## 2. Obstacles

Problems that often emerge in the integrated textile mills subsector mainly involve labour, raw materials, machinery and energy supply. Currently, there is a growing problem with energy costs. The cost of energy supplied by the state-owned company is becoming a big burden. The rising tariff (the maximum capacity and multipurpose tariff) has led to many companies in this sector seeking new

alternative energy supplies. Some of the large companies have converted to coal as an alternative energy source. In addition to saving up to 30 per cent in costs, this type of energy is easy to acquire in Indonesia. However, the use of this energy source is hindered by environmental regulations that list coal among toxic and dangerous substances.

Another emerging problem is related to labour. Regulation No. 13, 2003 is still the subject of dissent, especially the clauses concerning salary and separation pay.

With regard to machinery, the weaving, knitting and finishing subsector is facing a serious problem concerning ageing machines (table 7), which are causing inefficient energy consumption and low productivity.

**Table 7. Machinery up to 20 years old**

Industries	Unit	Number of machines	< 20 years	
			Account	Per cent
Weaving	ATM	248 957	204 393	82.1
Knitting	MR	41 312	34 743	84.1
Finishing	Units	349	325	93.2

### **3. Competitiveness**

Despite the many obstacles facing this subsector, its market potential is still enormous. This is proved by the fact that some products are still able to compete in the international market. Exports of woven products experienced a 23.51 per cent increase from US\$ 1.5 billion in 2004 to US\$ 1.8 billion in 2005. Exports of layered woven fabric recorded an increase of 22.64 per cent from US\$ 110.1 million in 2004 to US\$ 135 million in 2005.

However, some improvements are needed, especially by the Government in its capacity as national regulator.

#### **D. Cotton yarn (spinning)**

This subsector is also an important contributor to the absorption of labour. The problems faced by this subsector are almost identical to those affecting the weaving, knitting and finishing subsector. However, the major burden is the limited supply of the raw material, especially domestic cotton. This problem has weakened the subsector's competitiveness, as most of the cotton has to be imported from America and many other European countries. This adds to the cost of the raw material and increases the selling price of thread, making spinning subsector products less competitive.

In addition, ageing machinery is making the situation even worse. Of 7,803,241 spindles (table 8), 64.4 per cent are older than 20 years. This means represents a reduction in the productivity and efficiency of 5,025,287 spindles.

**Table 8. Indonesian spinning/yarn subsector highlights**

Description	Unit	Year					
		2001	2002	2003	2004	2005	
Number of companies	Unit	206	206	204	204	n.a.	
Capital investment	Rp billion	24 777	25 040	25 040	25 040	n.a.	
Number of machines	Spindle	7 803 158	7 803 241	7 803 241	n.a.	n.a.	
	Rotors	90 000	90 000	90 000	n.a.	n.a.	
Manpower	People	207 871	209 426	207 764	207 764	n.a.	
Production capacity	'000 tons	2 321	2 337	2 335	2 397	n.a.	
Production	value	Rp billion	24 580	23 444	23 562	24 055	n.a.
	volume	'000 tons	2 025	1 649	1 646	1 692	1 623
Exports	value	US\$ million	1 243	1 229	1 208	1 480	1 621
	volume	'000 tons	713	762	770	720	795
Imports	value	US\$ million	261	220	190	245	267
	volume	'000 tons	84	83	79	109	109

Source: BPS, Department of Industry, compiled by API.

### Competitiveness

In the Asia-Oceania region, Indonesia is still ranked among the top four countries in terms of the number of spindles installed (table 9). Of 126,688,300 spindles installed in Asia-Oceania, Indonesia has 7,803,241 spindles, or about 6.16 per cent. This is slightly lower than Pakistan, which has a 7.24 per cent share of the total number of spindles in Asia-Oceania. Of the world total, Indonesia holds a 4.63 per cent share of 168.636.100 spindles, thus, providing an opportunity for the country to maintain its world thread industry quota. However, to do so, it also needs to be supported by domestic business conditions that are conducive.

**Table 9. Spinning machinery, Asia-Oceania**

Rank	Country	Ring spindles		
		Number installed	Share (%)	Global share (%)
1	China	49 069 100	38.73	29.10
2	India	38 849 500	30.67	23.04
3	Pakistan	9 170 300	7.24	5.44
<b>4</b>	<b>Indonesia</b>	<b>7 803 241</b>	<b>6.16</b>	<b>4.63</b>
Total Asia and Oceania		126 688 300	100	75.13
Total world		168 636 100		100.00

## E. Handlooms

Textile production that is based on handlooms is slowly being left behind. Particularly in West Java, factory owners producing handloom weaving have become rare. Majalaya Kabupaten Bandung is one of the remaining areas that practices manual and semi-manual weaving. However, even though there are still a few handlooms in operation in that area, the number is slowly decreasing, mainly due to strong competition and superior capital capacity among the larger automated companies in the subsector.

**Table 10. Profile of other textile industry**

Category	Unit	2002	2003	2004	2005
Number of companies	Units	523	524	524	524
Manpower	People	249 280	246 319	251 675	250 360
Production capacity	Tons	90 103	89 875	101 454	101 568
Real production	Tons	35 339	35 284	43 671	45 654
Exports	US\$ million	267	579	533	536
	'000 tons	120	140	132	133
Imports	US\$ million	69	63	72	73
	'000 tons	30	34	39	39

Actually, the potential of this subsector is quite good. Small-scale producers in Majalaya are complementary to the larger producers. If a cooperative relationship were to be formed between the large and small-sized (handloom) factories, the results would be beneficial to both sides.

In addition, large producers in other subsectors could use the handloom subsector as part of the production chain. With a guaranteed supply of raw materials and by absorbing the products of the handloom subsector, an industrial balance would be formed.

The labour involved in this subsector is significant. However, the subsector has received much less attention from the Government. Yet, if it were to be better developed, it could create a stronger economic base, especially among the small and mid-sized producers that are a majority in this subsector.

If seen from the production perspective, although output is not large by mass-production standards, the fabric produced has greater originality and artistic value as well as a high sales value.

## **IV. Kazakhstan\***

### **Introduction**

Kazakhstan is known worldwide as a country with significant oil and natural gas reserves. With sufficient export options, Kazakhstan could become one of the world's largest oil producers and exporters in the next decade. However, Kazakhstan's strategic aspiration is to become a high-tech, diversified economy, with a high value-added, that is well integrated into the global economy. The energy sector is viewed as a good basis for achieving this goal.

The country's plans for the future are encapsulated in its Strategy of Industrial Innovation. Its starting point is the identification of priority sectors and the creation of networks or clusters of innovative economic activity. Priorities include oil and gas, machine-building, food processing, textiles, transport logistics, metallurgy, construction materials and tourism. The textile and clothing (T&C) sector is of special importance in this regard.

### **A. Industry overview**

The textile industry of Kazakhstan includes a group of light industries processing natural, synthetic and artificial fibres into yarn and fabrics. According to the State Classification, the textile industry should be represented by seven subsectors involving different economic activities. Prior to the disintegration of the former Soviet Union, the textile and apparel sector played a vital part in the Kazakhstan economy. Its share in total gross industrial production amounted to 15.6 per cent, and the level of profitability exceeded 24.5 per cent. However, during the past 15 years, the sector has become unprofitable (with a loss rate of about 11.5 per cent) and its share of manufacturing output has fallen to 0.6 per cent.

Due to the closure of major textile companies, most textile activities have ceased to exist. According to the Association of Light Industry, 733 T&C companies were registered in 2001, By 2005, the number had decreased to 670 enterprises, among which only 30 were large (>250 workers) and 68 were medium-sized (50-250 workers). All companies were privatized. Employment in the T&C sector decreased from 25,400 in 2001 to 17,000 in 2005 that makes up 2.8 per cent of all manufacturing employers.

Currently, the T&C sector is undergoing re-structuring. Between 2001 and 2005, the greatest growth was observed in the manufacturing of cotton yarn made from combed and non-combed fibres (71.9 per cent) and in cotton fabric (53.3 per cent). Increasingly larger volumes of cotton fibre are produced in southern Kazakhstan. Overall, however, since 2002, a steady decline has been observed in the T&C sector (see table).

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\* Prepared by Ms Tatyana Zhdanova, Vice-President, Union Chamber of Commerce and Industry, Kazakhstan.

### Production output in Kazakhstan

Category	2001	2002	2003	2004
Carded and combed cotton fibre (mt)	112 741	137 364	132 638	140 070
Cotton yarn made from combed and non-combed fibres (mt)	1 466	2 452	3 759	4 219
Cotton fabric ('000 m <sup>2</sup> )	7 615.0	14 204.0	19 979.4	16 400.6
Bed linen ('000 pieces)	1 348.5	1 727.8	1 404.8	1 516.0
Machine- or hand-knitted hosiery ('000 pieces)	6 295	7 010	7 809	8 294
Machine- or hand-knitted women's hosiery ('000 pairs)	158	286	100	128
Machine- and hand-knitted socks ('000 pairs)	2 934.9	3 007.8	2 535.3	2 560.0
Machine- or hand-knitted jerseys, polo-neck sweaters, pullovers, cardigans, waistcoats and similar clothing (single pieces)	81 731	56 051	69 986	157 950
Machine- or hand-knitted outer clothing (single pieces)	271 759	145 954	74 206	12 795

*Note:* mt = metric tons.

The growth of the T&C sector was largely facilitated by an increase in the production of low added-value goods, such as cotton fabric, yarn and cotton fibre. Between 70 per cent and 80 per cent of the enterprises of the country's T&C sector are producing clothing for the army, police, oil and gas sector, and catering and medical workers. The T&C sector in Kazakhstan only supplies around 8 per cent of the domestic market. It is known that for reasons of national economic security, it is necessary to produce at least 30 per cent of the domestic market demand. Thus, the current situation is unfavourable as Kazakhstan, despite possessing huge potential in terms of raw material, labour and other resources, is almost completely dependent on imports of T&C products.

In terms of foreign trade, the share of the T&C sector does not exceed 1 per cent. According to customs declarations, T&C exports in 2005 amounted to US\$ 213.9 million, which was a 13.2 per cent increase compared with US\$ 189 million in 2004. From January to September 2006, exports amounted to US\$ 182.9 million.

Some 35 per cent of T&C products are exported to CIS countries and the remaining 65 per cent to the United States, Canada, Italy, Switzerland, Germany and China. Imports of T&C products in 2005 totalled US\$ 223.9 million, which was a 42.5 per cent increase compared with 2004. In January-September 2006, imports amounted to US\$ 200.7 million. Twenty per cent of textile imports were from the Russian Federation, 25.1 per cent from China and 5.6 per cent from Turkey. The main T&C imports (>40 per cent) comprised raw cotton (15 per cent) and textile materials (16 per cent).

As can be seen from the above figures, Kazakhstan has a positive trade balance in these products. However, when considering only finished products, imports are 24 times higher than exports. Almost 94 per cent of textile exports are cotton fibre. The trade balance (export/import ratio) serves as the criterion of efficiency of the industry, economy and competitiveness. Thus, it is impossible to talk about any real economic

growth given the domination of finished goods in imports and raw materials in exports. Growing domestic demand is mostly met by imports of mainly undeclared, pirated products from China, Kyrgyzstan, Turkey and Pakistan, the share of which exceeds 95 per cent. These figures all imply that the T&C sector of Kazakhstan is facing a difficult situation. The Association of Light Industry has identified the main problems facing T&C manufacturers as:

- (a) A lack of access to capital, including unavailability of privileged financing (for example, for entities making investments in equipment), and the difficult process in obtaining loans from second level banks;
- (b) A lack of skilled manpower due to the poor quality of specialist training, unavailability of specialized training and the non-involvement of firms in the specialization process;
- (c) The absence of necessary standards and a quality management system;
- (d) Poor infrastructure in terms of upgrading of technical equipment and the lack of facilities for machinery construction;
- (e) Government controls with regard to the redistribution of VAT between farmers and processing plants, ineffective and inadequate government technical controls (non-declared imports etc.), inadequate regulations and inefficient enforcement of laws, and a lack of incentives for exporting companies;
- (f) Related problems such as unstable prices for raw materials (cotton), dependency on world prices, poor quality of raw materials (cotton seeds) and an absence of import barriers.

How can these problems resolved and the situation improved for the T&C sector in Kazakhstan? According to the Association of Light Industry, the following steps need to be taken:

- (a) Lower the tax burden (tax holidays for five years) in order to create equal conditions in the domestic market for legal commodity producers, "shadow" manufactures and "grey" importers;
- (b) Lower the VAT rate on T&C products, and grant exemption from profit tax for light industry enterprises, provided that the profit is used to develop the enterprise;
- (c) Protection of the domestic market against an unfair competition and dumping on the basis of current legislation by:
  - (i) Taking effective measures to suppress "shadow" imports of goods via "cargo transportation", and creating equal competition conditions in Kazakhstan for all participants in foreign trade activities;
  - (ii) Ensuring full and obligatory customs declaration of light industry goods;
  - (iii) Annual warehouse inspections, by independent experts, related Associations and the Unions, of the quality of goods purchased within the framework of government procurement;

- (iv) Inspections, by qualified independent experts, of enterprises with regard to capacity in terms of equipment, workers, shops etc., to ensure the quality throughout the manufacturing process. Enterprise ratings should be made easily available;
- (v) The introduction of a programme for the promotion of domestic textile products in the domestic and export markets.

The above issues are regularly discussed during roundtable conferences on the problems of light industry, the problems of WTO accession etc.

Despite the vast gap between Kazakhstan's T&C sector and leading foreign textile sectors, experts believe the outlook for development may be optimistic due to a government decision to create a competitive textile sector in Kazakhstan. Based on the directive of the President of Kazakhstan, N. Nazarbayev, the Government has started a new programme of economic diversification through the development of clusters. The objectives of this programme are increased competitiveness of non-extractive industries in Kazakhstan and increased productivity and economic development. The programme, which is complementary to the growth of the Kazakhstan economy at the national, regional and world levels, includes close cooperation between key members of the Government, businessmen and educational institutions.

The experiences of industrially developed countries demonstrate that the textile sector influences the formation of the services sector. Development of the T&C sector fosters employment, fills the domestic market with locally produced commodities, boosts specialized machine engineering, and facilitates the development of the weaving industry and trade. This is why the concept of a T&C cluster has priority in Kazakhstan's Strategy for Industrial and Innovation Development. One of the first steps in creating the cluster will be the establishment of the "Ontustik" Special Economic Zone in southern Kazakhstan by 1 July 2015 (Presidential Decree No. 1605, dated 6 July 2005). This measure is aimed at encouraging investors in the T&C sector – a promising step for southern Kazakhstan and the country as a whole.

It is planned to attract approximately US\$ 500 million in private investment in the development of the Special Economic Zone. Two hundred hectares with a favourable fuel and transportation infrastructure have been allocated for the Special Economic Zone. The construction of at least 15 spinning, weaving and sewing facilities is planned. Textile companies operating within the Special Economic Zone will be exempt from corporate income tax, land tax and property tax as well as partially exempt from VAT (on imports) until 1 July 2015. Considerable customs benefits are also envisaged for investors.

## **B. Successful projects**

Several companies currently operating in Kazakhstan have invested in upgrading existing cotton processing facilities and in building new ones. In 2003, the establishment of the Nimex Textile Company was based on the Ust Kamenogorsk Silk Fabrics Combine. Its capacity is 60,000 metric tons (mt) of raw cotton per year. The company produces fabrics for overalls, suits, dresses, decorative textiles, filter fabrics, yarn, batting and fabric impregnated to protect against dust, dirt and acids for protective clothing as well as clothing for catering and medical workers.



The Kazakhstan Development Bank has funded a project to upgrade the technology at the UTEX cotton processing company. The total project cost is US\$ 19.3 million and the design capacity of the plant is approximately 6,000 mt of cotton yarn per year. The yarn is sold throughout Kazakhstan and exported to the Russian Federation and Ukraine.

In the autumn of 2005, the Melange Complex was commissioned, after reconstruction, for the production of cotton fabrics. The plant's design capacity is more than 5 million running metres of fabrics per year. The total cost of reconstructing and expanding the enterprise, which includes weaving, dyeing and finishing workshops, was US\$ 40.5 million. The company focuses on the production of 3.2-metre-wide terry cloth, linens and jeans fabrics, which are in high demand in international markets. It is planned to export for these products to the Russian Federation, Ukraine, and other CIS and non-CIS countries.

A technopark has been established in southern Kazakhstan with the participation of Switzerland's Rieter, a world-famous manufacturer and supplier of weaving and knitting equipment. The project comprises a maintenance department, and courses for technical personnel and engineers. It is also planned to establish an experimental knitting plant, design new production facilities, and set up a facility for repairing electronic components at the technopark.

Another noteworthy textile project was the launch of Alliance Kazakhstani-Russian Textile in Southern Kazakhstan Oblast. The joint venture includes Kazakhstan's Myrzakent cotton company and the Russian Textile Corporation, which is a major textile holding in the Russian Federation. The company has a complete process cycle including all stages of processing cotton fibre into fabric. Up-to-date equipment by Belgian, Swedish and German producers has been installed. The investment was more than 35 € million. The new company's planned design capacity is 15 million m<sup>2</sup> of fabric per year. Alliance Kazakhstani-Russian Textile will focus on the production of grey goods, but it is planned to expand its production range to include sheeting, cotton print and terry cloth.

A situational analysis of the T&C sector in the country was implemented by the Kazakhstan Centre for Marketing and Analytical Research (CMAR). Taking into account such criteria as increases (decreases) in production, imports and exports as well as criteria defining production (quality, equipment wear etc.) and marketing (branding, sales and prices), CMAR was able to identify additional products manufactured by T&C producers that have a high market potential. In addition, CMAR was able to establish directions for the sector's development.

The products with a high level of attractiveness and high industrial potential include PVC fibres (Russian market), cotton yarn of high numbers (European market), and 1.5-metre-wide cotton fabrics, terry cloth and jerseys from camel wool (local and Russian markets). Such products as PVC, PA and PP fibres, dyeing and finishing, technical textiles (yarn and fabrics used for industrial purposes), synthetic fabrics (for producing professional and working clothes), professional clothing using man-made materials, and female stockings have high attractiveness and low industrial potential as they require high capital investment for development.

A similar analysis was made for wool products. Kazakhstan participates in the world woollen trade in three categories – short-haired wool, woollen fibre and thin wool that is not carded or combed. From 1999 to 2004, the share of Kazakhstan's wool exports in total world exports did not exceed 1 per cent. Compared with 2000, in 2004 the share of Kazakhstan in global wool exports was reduced practically by 94 per cent

in value and by more than 54 per cent in terms of volume. Such a sharp decrease is mainly due to the low level of wool processing in the region. The following countries are the largest importers of wool from Kazakhstan:

- (a) China – shorn wool, and fine or coarse animal hair not carded or combed;
- (b) Russian Federation – 96 per cent of exports comprises sheep hair not carded or combed;
- (c) Kyrgyzstan – wool exports make up 23 per cent of total export to this country

The attractive products and prospective segments of export markets have been defined by the analysis of foreign markets for animal hair and its products. The most attractive segments are:

- (a) Chinese market for shorn wool;
- (b) Chinese market for washed sheep's wool;
- (c) Turkish market for wool tops.

The markets with an average degree of attractiveness include:

- (a) Shorn wool in the Russian Federation, Belarus and Bulgaria;
- (b) Washed sheep's wool in the Russian Federation, Belarus, Bulgaria and Turkey;
- (c) Fine animal hair not carded or combed in China and Belarus;
- (d) Machine-spun wool in China, the Russian Federation, Belarus, Bulgaria, Romania and Turkey;
- (e) Wool tops in China, Romania and Belarus;
- (f) Fine processed animal hair in China, Turkey, Romania and Belarus;
- (g) Woollen machine-spun yarn in Romania, Bulgaria, Belarus, the Russian Federation and Turkey;
- (h) Woollen combing yarn in China, Bulgaria, Romania, the Russian Federation and Turkey;
- (i) Woollen spinning fabrics in Belarus, the Czech Republic and Turkey;
- (j) Woollen combing fabrics in China, Romania, Bulgaria, Turkey, the Russian Federation and Belarus.

The dynamics of the development of the international textiles market are such that the share of Western Europe and the United States in exports is decreasing while the share of India, China, Mongolia, Viet Nam and other Asian countries capable of creating a full process chain with geographically close links is growing. The industry has become an arena in which textile leaders from Western Europe as well as novices

actively investing in technology and production confront one another. Despite the fact that the T&C sector in Kazakhstan is still declining, participants in the Kazakhstani textile market stress that the market is very promising. This optimistic view is based on the following facts:

- (a) Kazakhstan is situated in a region where there is a huge demand for cotton yarn. For example, Asian and Pacific countries annually consume more than 16.5 million mt of yarn, followed by European countries at 1.6 million mt, the Russian Federation at 600,000 mt and the Middle East at 100,000 mt. It is therefore economically viable for Kazakhstan to export to the countries of those regions;
- (b) In view of its lower production costs as well as its proximity to raw materials (southern Kazakhstan, Uzbekistan, Turkmenistan and Tajikistan) and potential markets (China, the Asia-Pacific region, Europe and the Middle East), Kazakhstan's textile industry has great development potential. Most importantly, the Kazakhstan Cluster Initiative and the cluster conception come within the framework of the Government's programme for diversification of the national economy.

### **C. Conclusion**

Prior to the disintegration of the former Soviet Union, the T&C sector played a vital role in Kazakhstan's economy. Its share of total gross industrial production amounted to 15.6 per cent, and the level of profitability exceeded 24.5 per cent. However, for the past 15 years, the sector has been unprofitable (with a loss rate of about 11.5 per cent) and its share of manufacturing output has fallen to 0.6 per cent. The T&C sector in Kazakhstan only covers around 8 per cent of domestic market demand. In the foreign trade turnover, the share of the T&C sector does not exceed 1 per cent. Kazakhstan, possessing potentially huge raw material, labour and other resources, is completely dependent on imports of T&C products. Growing domestic demand is mostly met by imports of mainly undeclared, pirated products from China, Kyrgyzstan, Turkey and Pakistan, the share of which exceeds 95 per cent.

Based on the directive of the President of Kazakhstan, N. Nazarbayev, the Government has introduced a programme of economic diversification through the development of clusters. One of the first steps in creating the T&C cluster will be the establishment of the "Ontustik" Special Economic Zone in southern Kazakhstan by 1 July 2015. This measure is aimed at encouraging investors in the T&C sector, which will benefit southern Kazakhstan and the country as a whole.

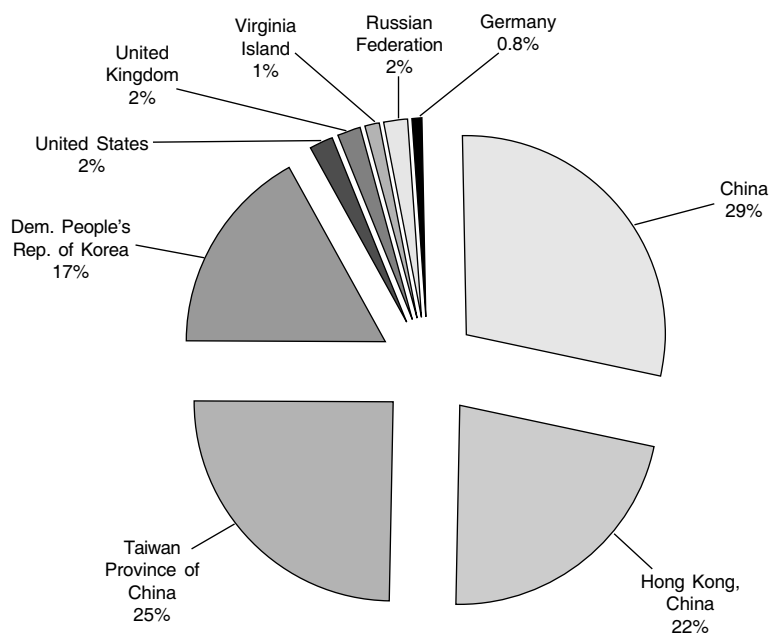
It is intended to attract approximately US\$ 500 million in private investment in the development of the Special Economic Zone. Two hundred hectares with a favourable fuel and transportation infrastructure have been allocated to the Special Economic Zone. It is planned to construct at least 15 spinning, weaving and sewing facilities, and textile companies operating within the Special Economic Zone will be fully exempt from corporate income tax, land tax and property tax as well as partially exempt from VAT (on imports) up until 1 July 2015. Considerable customs benefits are also envisaged for investors.

## V. Mongolia\*

### A. Current situation

Mongolia was one of the non-quota countries with regard to T&C exports to the United States market from 1999 to 2005. In 2005, the Agreement on Textile and Clothing (ATC) expired. Until 2005, foreign investment in the T&C sector rapidly increased in order to take advantage of the quota system. The major foreign investors in the T&C sector were from China, Taiwan Province of China, Hong Kong, China, and the Democratic People's Republic of Korea (figure 1). Unfortunately, the removal of quotas in 2005 seriously affected the Mongolian T&C sector when the number of T&C factories began to decline as foreign investments moved to other countries.

Figure 1. Share of foreign investment in the Mongolian T&C sector



In 2006, 30 T&C factories were operating, 17 of which had been established with foreign investment and the remainder domestically owned (table 1). Before 2005, the sector provided direct employment for more than 30,000 people, mostly women from vulnerable sections of society, who were the main breadwinners for 100,000 dependants. In 2007, only 5,000 workers were working for 30 T&C exporting factories.

\* Prepared by Ms Chuluunbat Ch.Tsetsegmaa, Mongolian National Chamber of Commerce and Industry.

**Table 1. Total number of T&C product exporters**

Year	Domestic investment	Foreign investment	Total	Of which	
				Urban	Rural
1999	20	30	50	50	–
2000	17	50	67	60	7
2001	16	54	70	57	13
2002	10	41	51	38	13
2003	10	47	57	47	10
2004	7	36	43	33	10
2005	13	38	51	46	5
2006	13	17	30	28	2

Most of the T&C factories are located in Ulaanbaatar. Because of this centralization, workers frequently change jobs from one factory to another. At present, there are 30 exporters and 40 small and medium-sized enterprises working in the T&C sector in Mongolia. The T&C factories pay US\$ 48.7 million into the social insurance fund, US\$ 1.7 million in income tax and US\$ 613.4 million to freight-forwarding companies annually.

Textile and garment exports climbed from slightly more than 5 million pieces in 1998 to 30 million pieces in 2005 (table 2). The total cutting, making and packing (CMP) price increased from US\$ 7.7 million to US\$ 14.3 million during that period. In 2006, the total quantity of exported articles declined sharply to 16 million pieces and the CMP price plunged to US\$ 7.2 million.

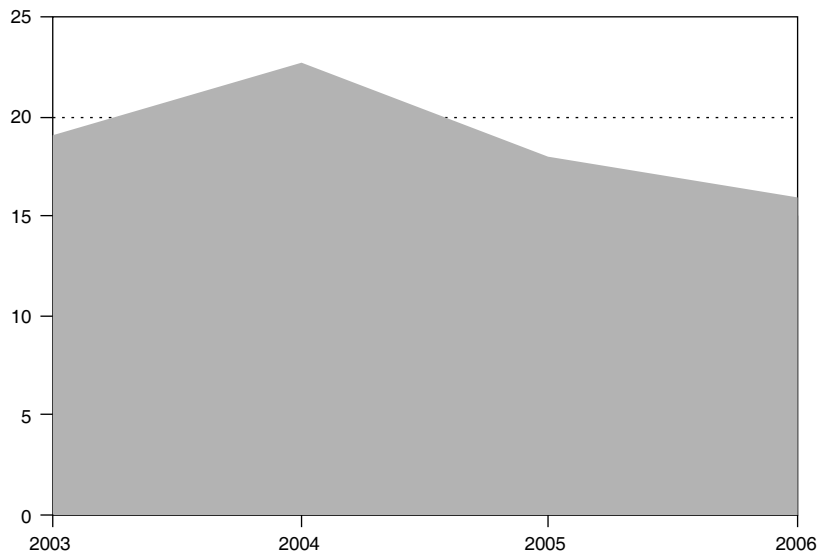
**Table 2. Total value of T&C products by CMP price**

Year	Quantity (pcs)	CMP price (US\$)
1998	5 012 042	6 556 215
1999	9 684 569	7 771 634
2000	18 944 041	26 731 872
2002	34 142 991	21 637 188
2003	33 058 831	22 029 060
2004	22 000 000	13 600 000
2005	30 000 000	14 300 000
2006	16 000 000	7 200 000

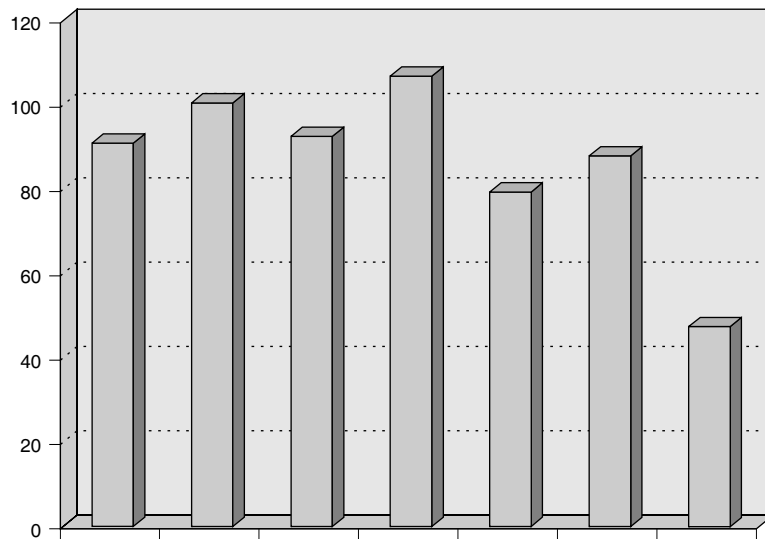
The T&C sector contributed 22.7 per cent of the country's total export value in 2004, 18 per cent in 2005 and 15.9 per cent in 2006 (figure II).

The total value of exports by FOB price increased from US\$ 91 million in 2000 to US\$ 106 million in 2003 (figure III). In 2006, the figure declined to US\$ 47.2 million. From 1999 to 2005, the United States was the predominant export market, taking more than 97 per cent of Mongolia's garment exports and 70 per cent of textile product exports.

**Figure II. Percentage of textile products in total export**



**Figure III. Total value of textile and garment products by FOB price**



The T&C sector in Mongolia currently accounts for about 4.7 per cent of GDP. At present, taxes are not levied on raw materials used in products that are ultimately exported.

Like many other developing countries, the T&C sector in Mongolia supplies overseas markets by order. A wide range of brand name articles are produced in Mongolia for the United States market, including:

Adidas – children’s T-shirts, trousers and suits  
Ann Taylor Inc – knitted sweaters  
Sears Roebuck and Corp – trousers and knitted sweaters  
Liz Claiborne Inc – knitted sweaters  
J. C. Penney Purchasing – trousers and shorts  
Express LLC – ladies’ trousers, shirts, suits and jackets  
Pacific Trail Inc – jackets  
Lollytogs Ltd. – children’s trousers, shirts, shorts and knitted sweaters  
Dawson Forte Cashmere Co. – cashmere sweaters  
Segrets Inc. – knitted sweaters  
Phillips Van Heusen Corp. – men’s shirts  
Lee Co. – trousers  
Jones Apparel Group Inc. – knitted sweaters  
Federated Merchandising Group – knitted sweaters  
May Department Stores International Inc. – knitted sweaters  
London Fog, Gap – jackets  
Old Navy – children’s shirts, trousers  
Sonoma Jean Co. – denim trousers.

### **B. Current problems**

The T&C sector in Mongolia currently faces a range of problems, including the following:

- (a) Mongolian T&C factories have to export their products with help from third parties including customers in China and Republic of Korea. In addition, all raw materials are imported from China, Republic of Korea and a number of other countries. However, the Mongolian factories receive only the CMP price, which has dropped from US\$ 1.4 to US\$ 0.48 per item. This is insufficient to allow the successful development of the sector;

- (b) Mongolia is a land-locked country and the majority of goods exported need to travel through China or the Russian Federation. Transportation costs are high, which affects the whole T&C sector;
- (c) High costs of electricity, heating and building rentals;
- (d) A high level of dependence on imports of designs. Designs that originate in Mongolia have to be done manually. The present methodology is slow, expensive, prone to problems of accuracy, and wasteful in terms of material and time;
- (e) Most of the T&C factories export to the United States and European Union markets through third parties;
- (f) A lower level of productivity compared with other countries;
- (g) Increasing movement of workers between factories;
- (h) A lack of a comprehensive training system for skilled workers and technicians.

### **C. Actions needed to support the T&C sector and its development**

In order to support and develop the T&C sector of Mongolia, the following steps need to be implemented:

- (a) Encourage investment by foreign and domestic companies by providing equal treatment and incentives;
- (b) Negotiate preferential trade agreements with trading partners, the European Union, Japan and the Russian Federation;
- (c) Establish a climate of quality excellence;
- (d) Minimize transportation time between suppliers and garment makers as well as between garment makers and customers;
- (e) Revise and implement related laws and regulations (e.g., the Labour Law and the Education Law) in order to provide incentives that will encourage increased productivity and the building up of human resources capacity;
- (f) Establish a banking and financial system that will provide financial support for T&C enterprises in terms of capital turnover;
- (g) Develop the whole T&C and related industries to enable them to take an integrated approach to moving away from low-cost products towards unique higher value-added commodities;
- (h) Research possibilities of exporting to the United States and other international markets directly without involving third party intermediaries;
- (i) Increase competitiveness;
- (j) Use domestically produced raw materials and fabrics;



- (k) Expand the domestic market and provide home-produced consumer goods and state-ordered goods;
- (l) Improve the infrastructure supporting the T&C sector by establishing a central supply of raw materials, fabrics, accessories and other related items, with the objective of encouraging domestic small and medium-sized enterprises to use local raw materials in producing basic and supplementary materials;
- (m) Fully utilize and upgrade the capacity of factories by transferring and introducing new technology and equipment.

#### **D. Potential markets and advantages**

Mongolia is a beneficiary country under the European Union "GSP+" from 1 January 2006 up until 2008. The European Union GSP+ provides preferential duty-free entry for 7,200 products originating in Mongolia, including all T&C products.

Mongolia is an immediate neighbour of China, which is one of the biggest producers and suppliers of T&C raw materials in the world.

Mongolia is benefiting from GSP preference in Japan, the Russia Federation, Norway, Switzerland, Belarus, Bulgaria, Australia, Canada, New Zealand and the United States.

Mongolia is the world's second largest supplier of cashmere (22 per cent) next to China and is the source of the best quality cashmere, which comes only from Mongolian or Inner Mongolian goats.

## VI. Myanmar\*

### Introduction

This report, which covers the period from 1997 to 2006, is aimed at highlighting the opportunities and strength of Myanmar's garment manufacturing firms and the constraints on their development. It also explores possible ways of cooperation with the garment industries in China and neighbouring countries on a contractual basis and, if possible, to move towards a "supply chain development" in the long term.

#### A. Background

Since the times of Myanmar kings, a household/cottage textile (cotton and imported silk from Yunnan) and clothing (cotton ginning, spinning, weaving, garment-making etc) industry producing for local use has been developed throughout Myanmar.

During the colonial period,<sup>1</sup> the indigenous T&C cottage industry survived despite extensive imports of English-made quality textiles, especially after the opening of the Suez Canal in 1869.

Following independence, during the 1950s and early 1960s the industry developed with the support of the Government. Exports of quality nylon fabrics began to neighbouring countries including Thailand. Almost all the textile factories at that time were owned by renowned private companies.

Then, in 1962, a socialist government came to power and nationalized the private enterprises and businesses, including micro-businesses, in 1964. From 1964 until 1989,<sup>2</sup> the private sector – with the exception of small businesses and street vendors, disappeared. The former textile factories became state-owned enterprises (SOEs) under the Ministry of Industry No.1.

After the present regime took power in 1988, "market-oriented economic reforms" were introduced.<sup>3</sup> From 1994, the establishment of private garment factories began, especially those involved in cutting, making and packaging (CMP). From just 25 factories located in Yangon in 1994, the number had expanded rapidly to 291 by 1999.

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\* Prepared by Mr. Myint Soe, Chairman, Myanmar Garment Manufacturers Association.

<sup>1</sup> The first annexation of Myanmar (then known as Burma) by the British was in 1826, followed by the second in 1852. The final annexation of the whole country took place in 1885-1886. The country gained independence in 1948.

<sup>2</sup> The present military Government took power in 1988, abolished the socialist regime and declared a market-oriented economic policy. It has made a number of economic reforms since 1989, restored the National Chambers of Commerce – UMCCI and legalized private businesses under the Myanmar Companies Act [India Act VII, 1913], (1 April 1914). The Union of Burma Foreign Investment Law and Procedures was promulgated in November 1998. In addition, the Myanmar Citizens Investment Law, procedures and types of economic activities were enacted in March 1994.

<sup>3</sup> See footnote 2.

## B. Garment firms operating in Myanmar, 1997-2004

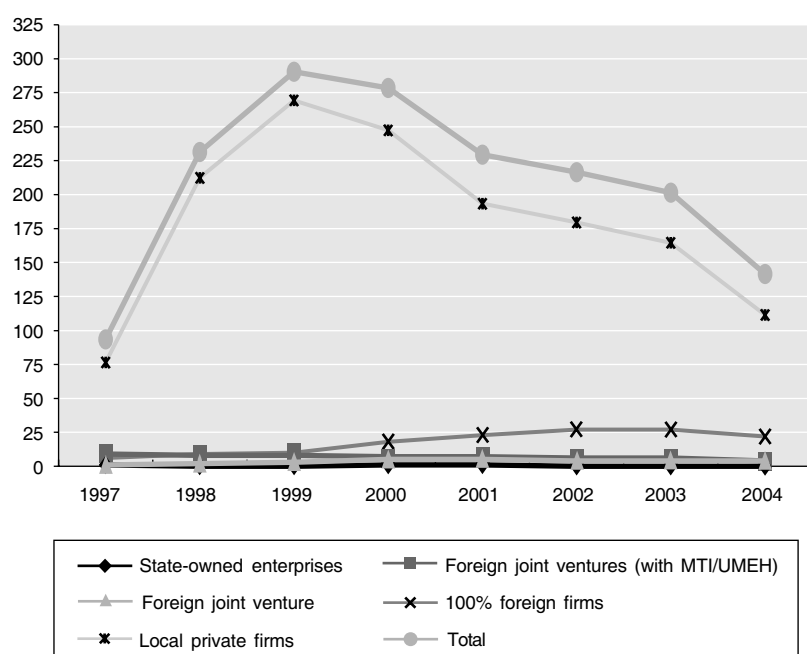
Table 1 and figure I show the trend in the number of operational garment firms in Myanmar from 1997 to 2004.

It can be seen that in the seven-year period covered by table 1 and figure I, the number of garment firms in Myanmar grew by 1.5 times. However, if the period is extended to the peak year of 1999, the number grew by 3 times. Subsequently, the

**Table 1. Number of operational garment firms in Myanmar, 1997-2004**

Financial year	State-owned enterprises	Foreign joint ventures with		100% foreign firms	Local private firms	Total
		MTI/UMEH	Private firms			
1997	1	9	1	6	77	94
1998	0	8	2	9	213	232
1999	0	8	3	10	270	291
2000	1	7	5	18	248	279
2001	1	7	5	23	194	230
2002	0	6	4	27	180	217
2003	0	6	4	27	165	202
2004	0	4	4	22	112	142

**Figure I. Number of operational garment firms in Myanmar, 1997-2004**



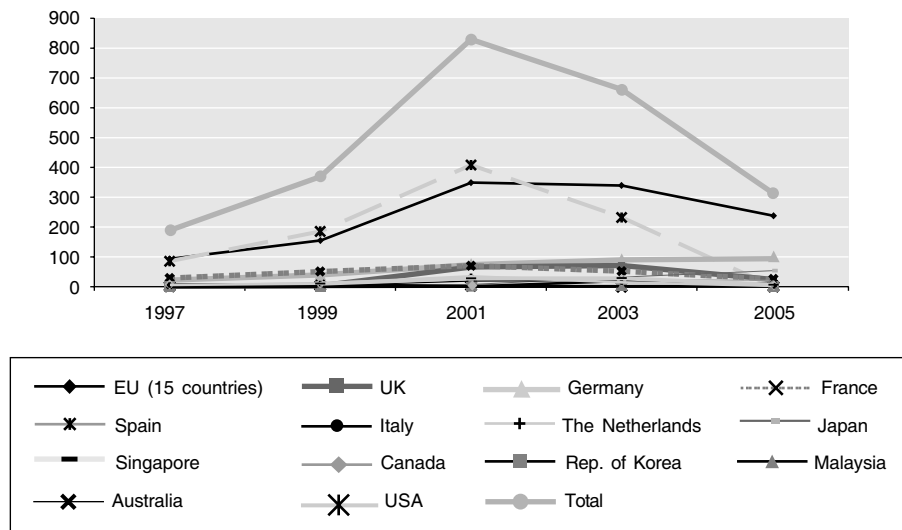
number of garment firms declined significantly to just 48.8 per cent of the 1999 level. The main reasons were (a) United States economic sanctions, (b) the phasing out of ATC quotas by the end of 2004 and (c) rigidity in domestic trade procedures (table 2).

**Table 2. Major importers of Myanmar garments**

(Unit: US\$ million)

Importing countries	1997	1999	2001	2003	2005
European Union 15	94.1	155.1	348.8	339.9	236.9
United Kingdom	31.9	35.0	97.3	102.6	53.8
Germany	23.1	40.6	75.3	90.9	96.3
France	29.2	51.4	70.6	52.3	26.2
Spain	3.5	7.6	26.9	24.2	19.8
Italy	4.1	4.1	19.2	21.6	11.0
The Netherlands	5.7	10.7	35.1	15.3	7.7
Japan	1.1	2.1	7.5	32.2	52.7
Singapore		10.8	28.4	29.2	7.5
Canada	7.8	11.6	2.5	19.9	5.0
Republic of Korea	0.1	0.2	3.3	5.0	0.4
Malaysia	0.0	0.0	0.5	2.8	2.7
Australia	1.5	3.6	3.0	0.2	0.2
United States	85.3	185.7	408.0	232.7	0.0
<b>Total</b>	<b>189.8</b>	<b>369.1</b>	<b>829.0</b>	<b>661.8</b>	<b>312.4</b>

**Figure II. Major importers of garments from Myanmar in terms of value (US\$ million)**



### C. Situational Analysis

The following situational analysis shows the productivity and competitiveness of garment firms in Myanmar (tables 3 and 4).

**Table 3. Productivity of garment firms in Myanmar, 2004**

	100% foreign firms	Foreign joint ventures	Domestic private firms	Total
Number of firms	13	6	111	130
Number of workers	9 790	4 380	29 550	43 720
Number of sewing machines	4 412	2 728	16 649	23 789
Production (in dozens)	4 445 757	2 423 000	6 092 820	12 961 577
Workers per firm	753	730	266	336
Sewing machines per firm	339	455	150	183
Production per firm (in dozens)	341 981	403 833	54 890	99 704
Production per worker (in dozens)	454	553	206	296
Sewing machines per worker	0.5	0.6	0.6	0.5
Productivity (relative to total production per worker)	1.5	1.9	0.7	1.0

**Table 4. Competitiveness of garment firms in Myanmar**

Category	Competitive	Non-competitive
Labour wages	123	20
Skill	93	50
Human resources	86	57
Fulfillment of consignment orders	73	70
Infrastructure	15	128
Market	-	112
Incentives	15	128

### Constraints on Myanmar garment firms

Garment firms in Myanmar also face a number of constraints. The main constraint has been the strong competition in the global clothing market, especially from China and India (table 5), following the phasing out of ATC quotas.

Other constraints include:

- (a) Economic sanctions by the United States (see table 2);

**Table 5. Share of China and India in the global T&C market, 2004**

(Unit: Percentage)

Country	Clothing exports	Textile exports	Total
China	24.0	17.2	41.2
India	2.9	4.0	6.9
Total China + India	26.9	21.2	48.1

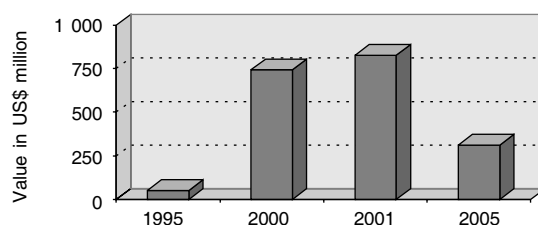
*Note:* Both countries possess cheap labour, availability of necessary locally-made machinery and fabrics, other necessities as well as power and other supporting facilities, which ensures a comparative advantage over competitors.

- (b) Inadequate power supplies, which result in extra high costs for small-scale power generation needed by the private garment factories. It has been estimated that due to the high cost of fuel, the generation cost of one unit of electrical power is more than 10 times the official government rate. This is a major factor affecting competitiveness in terms of cost;
- (c) Inadequate physical infrastructure such as transportation (telecommunications, roads, ports and shipping facilities), resulting in delays in completing orders;
- (d) Rigidity in trade procedural matters, resulting in higher transaction costs;
- (e) A shortage of skilled workers and middle-level technicians;
- (f) Job-hopping by workers from one factory to another;
- (g) A lack of access to financial resources, incentives, modern efficient machinery, and garment technology and management.

#### **D. Conclusion**

The establishment of private garment firms operating on a CMP basis started in 1994. In 1995, garment exports totalled just US\$ 50 million, rising to a peak US\$ 745.5 million in 2000 and then declining to US\$ 829 million in 2001 (figure III). By 2005, the annual total value of exports had plunged to US\$ 312.4 million due to the various constraints discussed above.

**Figure III. Garment export value, 1995-2005**



However, not only the value of exports declined. The number of factories also fell sharply from 291 in 1999 to 142 in 2004. Most of the private garment firms are small-sized enterprises in regional terms: however, according to the Myanmar definition of small and medium-sized industries, they are medium-sized enterprises that each employ 101 to 300 workers.

Strong competition in the global garment trade following the removal of WTO quotas resulted in sharp decline in Myanmar garment exports as well as in the number of Myanmar private garment firms.

Increased cooperation between Chinese T&C firms and their Myanmar counterparts in CMP garment products would be mutually beneficial. With that in mind, the Myanmar Garment Manufacturers Association is seeking ways of cooperating with its Chinese counterparts in Myanmar.

## **VII. Nepal\***

### **Introduction**

The T&C sector has remained a prime contributor to Nepal's export trade development. The imposition and elimination of the quota system in international apparel trading has been responsible for both the rise and the fall of the T&C sector in Nepal. With the introduction of MFA quotas, the industry boomed rapidly because of spillover business from neighbouring countries; however, it was also damaged unexpectedly by the elimination of the quota regime more than two years ago.

When compared to other LDC apparel-exporting countries, Nepal is probably the only country to have experienced an immediate impact resulting from the ending of the quota system in the form of a severe drop in its exports to the United States. There are two basic reasons for this adverse situation. First, Nepal is not only an LDC economy, but also a land-locked nation with a relatively low competitive edge in both production and delivery for international markets. Second, it acted late in adopting an environment conducive to international textiles and clothing trade in the post-MFA period. Despite that, the industry has managed to survive, although the situation is still far from sound.

#### **A. Production and employment situation**

The apparel subsector in Nepal involves two types of industries – businesses that are totally focused on domestic demand and those that are totally export-oriented. Domestic market-based firms have remained traditional and fragmented with a sluggish growth trend, whereas the export-oriented businesses continued to surge until the mid-1990s, reaching a peak of 1,067 according to Garment Association of Nepal (GAN) records. However, the number of exporting firms then declined rapidly with the phasing out of the quota system as well as changes in the internal quota distribution policy.

The declining trend in the number of garment businesses has been ominous, particularly since 2003. The number of operational firms, which totalled 158 in 2003, had declined to 126 by 2004. Currently, only 99 firms are registered with GAN, of which only 20 per cent are operational. Regarding ownership, almost all of the firms are owned by domestic entrepreneurs, except for one that is joint venture with India.

Employment in this subsector was more than 50,000 (direct only) during the boom period of 1999-2000, accounting for 12 per cent of total employment in the manufacturing sector. About 25 per cent of the total employees in the garment industry are women, which is an exceptionally high figure for a society with widespread gender discrimination.

After reaching a peak level in the mid-1990s, the number of firms continued to decline, while total output continued to rise, indicating growth in the average size of the firms. That can be attributed to modernized production plants and increased experience

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\* Prepared by Mr. Kiran P. Saakha, President, Garment Association of Nepal.



of Nepalese manufacturers in apparel export marketing. However, Nepal did not really benefit from the its factor endowment, despite the industry being labour-intensive. This may be because of high employment of unskilled labour and overemphasis placed on low-value commodity items by Nepalese exporters.

## B. Export composition and direction

From an initially minuscule export value until the mid-1980s, exports of Nepalese apparel increased steadily to achieve a share of more than 90 per cent of the country's total exports. Among overseas markets, the United States, Canada and the European Union, were the major destinations for Nepalese apparel during the quota regime, and remain so.

Although exports of Nepalese garments to the Indian market previously appeared trivial, that destination has shown promising indications as the share has gradually increased in recent years. Exports to India surged rapidly in 2005/06, passing the NRs 1 billion level with a share of more than 17 per cent of total clothing exports to that country. However, a downward trend in total Nepalese garment exports has become apparent since the last phase of quota elimination in 2004, as the value of exports shrank by more than 34 per cent in 2004/05, compared with a year earlier. However, that trend improved slightly in 2005/06, as the loss of exports to overseas markets has been replaced by exports to India (table 1).

**Table 1. Apparel exports from Nepal to international markets and India**

(Value in NRs '000)

Year	International markets	%	India	%	Total	%	Percentage change in total
2000/01	11 431 246	98.34	192 100	1.65	11 623 346	100	–
2001/02	7 752 296	97.31	213 500	2.68	7 965 796	100	–31.4
2002/03	11 613 749	96.67	399 200	3.32	12 012 949	100	+ 50.8
2003/04	9 552 544	93.84	626 700	6.15	10 179 244	100	–15.2
2004/05	6 307 211	94.51	365 700	5.48	6 672 911	100	–34.4
2005/06	5 420 975	82.65	1 137 300	17.37	6 558 275	100	–0.017

Sources: TPC and GAN.

The share of garments in Nepal's total national exports ranged from 11 per cent to 24 per cent between 2000/01 and 2004/05, whereas its share in the total overseas exports ranged from 35 per cent to 50 per cent, indicating a dominant role in Nepal's overseas exports only (table 2).

Regarding market access opportunities, it is relevant to consider Nepalese garment exports to the Quad countries (the United States, European Union, Canada and Japan) (table 3). Among them, the United States has been a prime market for Nepalese apparel exports, with an annual share of exports to Quad countries ranging from 85 per cent to 90 per cent until the first half of the MFA period. However, the United States share has contracted from as high as 90 per cent in 2000/01 to 75 per

**Table 2. Share of apparel in overseas export and total national export of Nepal**

Year	Total overseas exports (NRs)	Apparel exports to overseas (NRs)	Share of apparel in overseas exports (%)	Total national export (NRs)	Total apparel exports (NRs)	Share of apparel in total national exports (%)
2000/01	28 690 299	11 431 246	39.84	55 245 900	11 623 346	21.03
2001/02	18 409 236	7 752 296	42.00	47 386 788	7 965 796	16.81
2002/03	21 981 475	11 613 749	52.83	50 011 122	12 012 949	24.02
2003/04	20 941 661	9 552 544	45.47	53 949 414	10 179 244	18.86
2004/05	17 691 885	6 307 211	35.65	58 975 321	6 672 911	11.31

Sources: TPC and GAN

**Table 3. Share of Nepalese garment exports to the Quad countries**

(Unit: Percentage)

Year	United States	European Union	Canada	Japan
2000/01	90.96	7.32	0.91	0.42
2001/02	85.28	12.28	0.85	0.60
2002/03	87.87	9.80	1.00	0.65
2003/04	75.58	20.48	2.18	1.00
2004/05	75.18	17.84	3.25	1.45
2005/06*	62.07	27.31	3.58	2.00

Source: Calculation based on TPC data.

\* First 10 months.

cent immediately after the quota phase-out, reflecting the impact of liberalization on the international RMG trade. In addition, the United States' share in the post-MFA period is declining at a faster rate.

However, the situation has reversed in the case of the other Quad countries, where exports have increased modestly. The increase in exports to Quad countries other than the United States is probably due to preferential market access granted by those countries to Nepal under GSP. Exports to the European Union, in particular, have been encouraging, with a relatively faster growth rate and larger shares in recent years. One of the reasons for this could be that the standard European Union preferential rules of origin have been relaxed for Nepalese garment imports since 1997. Since then, Nepal's exports to European Union countries, such as the United Kingdom and France, have individually appeared more promising than exports to Canada and Japan. Other European Union markets such as Germany, Italy and Spain have shown good potential.

However, Nepal has not been able to utilize fully the European Union market access opportunities, despite preferential market access and relaxation of the standard preferential rules of origin. On the other hand, one of the reasons for the decline in Nepal's share in the United States market has been attributed to the absence of

equal opportunity in the American market, as Nepal does not enjoy United States preferential market access. Thus, the export market for Nepal can be distinctly classified into preferential and non-preferential markets, thus perhaps making it desirable to develop two different marketing strategies in order to increase overall garment exports.

With regard to export products, cotton apparel has dominated Nepal's apparel export composition. Nepalese exporters had managed to retain their position in cotton-based consumer items in the United States market, despite stronger competition in this product category, the most popular of which were cotton-based trousers and shorts, T-shirts and vests, blouses and tops (including pullover and cardigans). However, Nepal has lost its market share of these products in the United States, despite the growth in imports by the United States in the first quarter of 2005. These products actually had the highest quota utilization rates (above 90 per cent) during the quota regime.

There is a marked difference in the composition of products exported to the United States and the European Union. The American market has mainly concentrated on lower-end cotton consumer items, while the European market has attracted relatively high-value wool and silk-based items. Exports of cotton items to both destinations have declined sharply in recent years, probably due to the higher degree of competition in the cotton category since the removal of quotas. In contrast, the European Union market has been concentrating on relatively high-value woollen and silk items.

## **C. Challenges in the post-MFA period**

### **1. Internal bottlenecks**

Internal bottlenecks to development of the Nepalese garment subsector remain persistent. The ability of apparel manufacturers and exporters to provide a full package business system has been constrained by the lack of physical infrastructure and logistics in Nepal, mainly due to geographical disadvantages. Similarly, Nepalese firms have yet to improve supply efficiency by changing the pattern of sourcing management. In addition, they are affected by the unavailability of ancillary industries and services.

Delivery efficiency is largely affected by the lack of direct access to seaport facilities, increasing the transaction costs for Nepalese garment exports. The difficulties faced in the transportation of goods are inherent in Nepal's export trade. This is even more problematic in the case of garment exports, as Nepalese exporters require payment of up to 20 per cent more in transportation costs and 50 per cent longer times for the delivery of goods compared to other suppliers within the region. Hence, in addition to infrastructure problems, Nepalese garment exporters are affected by cost inefficiency and longer lead-times. Another related constraint is that the possibility of consolidating Nepal's garment industry through vertical integration is still being hindered by the absence of backward and forward linkages. Resolving these constraints remains critical to the success of efforts by the Nepalese garment subsector to overcome existing supply constraints and become competitive in trading without quotas.

Other major internal bottlenecks affecting the Nepalese garment sector are the scarcity of human resources and skilled labour and difficulty in gaining access to trade financing (both pre-shipment and post-shipment).

At present, however, the Nepalese garment sector is concerned more about the political environment than about market access and competition affecting the international marketing.

## **2. External factors**

Price competition was, and remains, a major external factor affecting competitiveness of the Nepalese garment sector. However, demand for some selected items has not improved despite their competitive prices. This somehow suggests that the price difference is not a decisive factor in sourcing decisions of buyers. Thus, Nepalese exporters should consider other factors when responding to the growing international competition.

It is also important to assess the market access issue, as the MFN system applies in the United States (a prime market), and preferential treatment must be faced in the European Union (the second-most important export destination). While Nepal no longer has an equal opportunity market in the United States, it not only enjoys preferential treatment under GSP in the European Union but also the facility of derogation from the standard European Union GSP rules of origin. However, although European Union preferential treatment supports improved competitiveness of Nepalese garments due to the duty advantage, the preferential utilization rate among Nepalese exporters still appears to be quite low. There remains ample scope for Nepalese exporters to expand in the European Union market, as the European Union GSP scheme is applicable for an unlimited period and not subject to periodic reviews, thus providing greater certainty of market access.

The Canadian and Japanese preferential schemes are no less valuable to Nepalese apparel exporters, as both initiatives have granted duty-free and quota-free status to clothing, with relatively flexible rules of origin requirements. However, Nepalese garment exporters should not depend totally on preferential market access, as the margin of preference is eroding due to reductions in average tariff rates for manufacturing goods internationally. In addition, the significance of preferential treatment to Nepalese garment exports would largely depend on the result of the ongoing non-agricultural market access negotiations under WTO. Similarly, the relevance of the WTO Hong Kong, China, commitment to duty-free and quota-free treatment for all LDC products would be meaningless if the scheme were to exclude most of the garment items under the provision of a sensitive list.

In a post-quota trade regime, Nepalese exporters are expected to face difficulties in meeting buyers' requirements for standards as well as the workplace code of conduct that the manufacturers have to follow. These measures have, however, not been a major issue of concern for market access, but they must not be underestimated. Nepalese traders have to be able to meet such requirements by expanding their capacity, so that they will be able to minimize the incidence of such measures in the future.

## **D. Post-MFA adjustment programmes**

With regard to the post-MFA situation, the Nepalese garment subsector needs to concentrate on supply capacity as well as on strengthening their competitive edge through economies of scale in production and delivery efficiency. The current trend indicates that buyers' decisions on sourcing depend not only on pricing, but also on

exporters being assured of supply quantity and delivery. However, this cannot be achieved without developing an infrastructure for vertical production together with consolidation of the Nepalese clothing industry that includes delivery efficiency. The Nepalese garment subsector, under a GAN initiative, has been advocating industrial clustering through the Garment Processing Zone (GPZ) concept.

The proposed GPZ will be a specialized product-processing zone, with every type of facility required by the clothing industry available closer to the production site. It will support the clustering of industries and services. The major objectives of this processing zone would, among others, be consolidation of output capacity, simplification of trade procedures, and enhancement of delivery efficiency by reducing transportation and transaction costs. However, the idea of establishing a GPZ is at a very early stage, as the Government has not yet officially endorsed it.

## **E. Conclusion**

Among major LDC garment exporters, the end of the quota system has hit Nepal the hardest. Two major factors are responsible. One is higher transaction costs that have eroded Nepal's competitive edge in liberal trade, which does not allow protection from quotas. Two, Nepal has been slow to adjust to an international clothing trade that is without a quota regime.

The end of quota system has reduced the number of garment industries and their export value substantially, thus having a significant impact on employment opportunities at large. From direct employment of more than 50,000 workers during the boom period, that number has fallen to approximately 10,000.

Exports to other regions, with a major portion going to the United States market, have gained a significant share of Nepal's total garment export trade. Although apparel has secured a prominent share of the country's total overseas garment exports (approximately 50 per cent), its share of total national exports has not exceeded more than 24 per cent. In 2004/05, apparel shared 11 per cent of total national exports. Interestingly, exports to India have shown an increasing trend, growing from a share of just 5 per cent of total in 2004/05 to more than 17 per cent in 2005/06.

The Quad country markets still important with regard to market access opportunities for Nepal. The United States remains a prime market even in the post-quota regime, but its share in total exports to Quad countries is declining at an accelerating rate, revealing a decline in the scope for marketing. Nepal no longer enjoys equal opportunity benefits in the United States, as its garment exports do not enjoy preferential market access in that country. However, the European Union, Canada and Japan continue to grant this privilege. However, compared with the European Union, Nepalese apparel exports to Canada and Japan appear insignificant.

Exports to the European Union have shown promising signs of a smooth growth trend in recent years. The European Union's GSP system and the facility for derogation from the European Union GSP rules of origin for Nepal have supported the country's market diversification drive. However, preferential utilization rate by Nepalese garment exporters to the European Union is still low. Therefore, efforts should be made to increase the preferential utilization rate not only in the European Union market, but also in Canada and Japan as well as in other markets where Nepal is eligible for GSP.

Another problem is that of internal bottlenecks (a lack of both trade infrastructure and trade support services), which continue to be a major barrier to development. In addition, the difficulties created by supply-side constraints and delivery inefficiency will remain unresolved unless an initiative is taken to consolidate output and vertical production. This will not be possible without the Government's assurance of capacity-building together with the ability of individual businesses to manage sourcing and the supply chain. By giving priority to these issues, the private sector – under the auspices of GAN – has proposed the establishment of a GPZ to the Government in order to overcome the various internal bottlenecks and raise the efficiency of the Nepalese garment sector.

## VIII. Thailand\*

### Introduction

#### 1. Role of the textile industry

The textiles sector in Thailand has played an important role in the country's economy in terms of value-added, employment opportunities and export earnings. The impacts of this sector include:

- (a) The creation of the highest percentage of GDP in the manufacturing sector, amounting to 13 per cent of the total manufacturing value-added in 2005;
- (b) The creation of the top rate of employment in the manufacturing sector, amounting to 19.9 per cent (an estimated 1,100,000 employees) of the total industrial workforce in 2005;
- (c) Being one of the highest export earners, with a 5.3 per cent share of the total export value in 2006.

#### 2. Number of factories

In 2006, 4,464 operating textile mills were registered with the Industrial Works Department, an increase 0.54 per cent from 2005 (table 1). This total was divided into 17 man-made fibre mills, 147 spinning mills, 659 weaving mills, 731 knitting mills, 415 dyeing, printing and finishing mills, and 2,495 garment mills. Approximately 90 per cent of the plants were located in Bangkok and its vicinity (Samut Prakarn, Samut Sakhon, Nonthaburi, Pathum Thani and Nakhon Pathom), many of which were involved in clothing manufacturing.

**Table 1. Number of registered factories in operation**

Industry	Number of Establishments				
	2002	2003	2004	2005	2006p
Fiber	18	18	17	17	17
Spinning	150	154	152	153	147
Weaving	681	673	661	636	659
Knitting	664	675	658	684	731
Dyeing, Printing & Finishing	409	414	404	409	415
Garment	2 648	2 658	2 588	2 541	2 495
Total (Mills)	4 570	4 592	4 480	4 440	4 464

2006p = Preliminary

\* Prepared by Mr. Virat Tандаecharurat, Executive Director, Thailand Textile Institute.

### 3. Workforce

In 2006, 1,069,560 workers were employed in the textile industry, an increase of 0.52 per cent from 2005 (table 2). Of that total, 828,880 employees (77.6 per cent) were working in the clothing subsector. The man-made fibre, spinning, weaving, knitting, and dyeing, printing and finishing subsectors accounted for employment rates of 1.4 per cent, 5.7 per cent, 5.2 per cent, 5.7 per cent and 4.4 per cent, respectively.

**Table 2. Number of employees by subsector**

Industry	Number of Workers				
	2002	2003	2004	2005	2006p
Fiber	15 600	15 500	14 550	14 430	14 430
Spinning	60 580	61 750	61 360	61 100	60 550
Weaving	58 980	57 880	56 760	55 250	56 700
Knitting	59 930	60 280	59 710	60 790	62 150
Dyeing, Printing & Finishing	46 930	47 200	46 560	46 770	46 850
Garment	840 850	841 520	837 680	825 650	828 880
Total	1 082 870	1 084 130	1 076 620	1 063 990	1 069 560

2006p = Preliminary

### 4. Capacity in terms of installed machinery

By the end of 2006, a total of 3,863,850 spindles for spinning and 141,220 weaving machines had been installed. The installation of knitting and sewing machinery in knitting and clothing plants totalled 125,320 and 752,842 machines, respectively.

#### A. Production

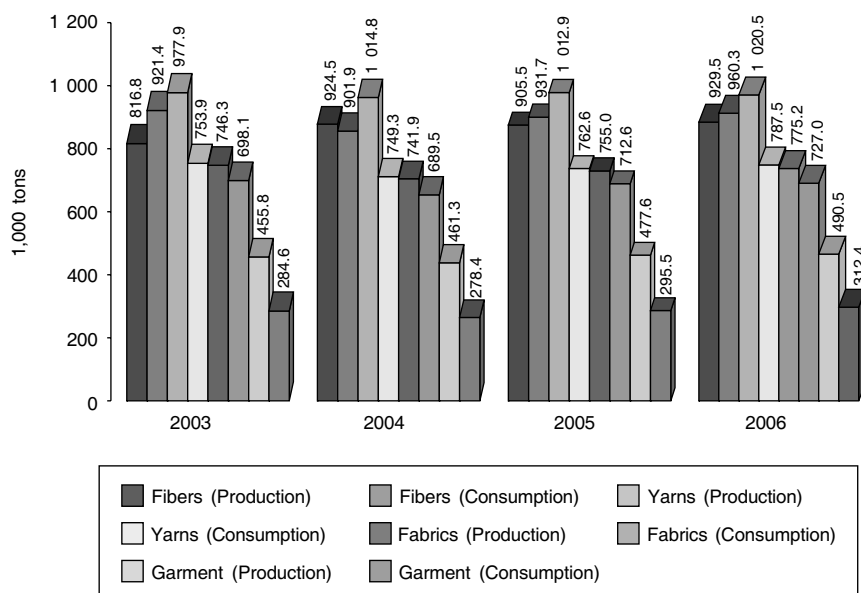
##### 1. Man-made fibres

In 2006, production of man-made fibres totalled 929,500 tons,<sup>1</sup> an increase 2.7 per cent from 2005 (see figure I). Of the total production, staple fibres accounted for 547,000 tons while filament made up the remaining 382,500 tons. The principal varieties of man-made fibres comprised polyester staple fibre, polyester filament yarn, polyester pre-oriented yarn, nylon filament yarn, nylon pre-oriented yarn, acrylic stable fibre and rayon staple fibre.

<sup>1</sup> References to production output in this report are in metric tons.



**Textile and garment production and consumption, 2003-2006**



## 2. Yarn

Production of cotton yarn and man-made yarn in 2006 totalled 1,200,500 tons, an increase of 0.75 per cent from 2005. Of total production, cotton yarn accounted for 430,000 tons while synthetic yarn made up the balance.

## 3. Fabric

Production of woven and knitted fabrics amounted to 510,300 tons and 264,900 tons, respectively, in 2006, which was an increase of 2.7 per cent from 2005. Woven products comprised cotton and man-made fabrics amounting to 238,200 tons and 283,500 tons, respectively.

## 4. Clothing

Total production of clothing in 2006 amounted to 490,500 tons, an increase of 2.7 per cent from 2005. The items comprised made from woven and knitted fabrics accounted for 283,200 tons and 207,500 tons.

## 5. Overall growth rate

Overall, textile and garment production is expected to show a slower rate of growth than in recent years because of strong competition in the global markets, especially with regard to lower-value products.

## **B. Consumption**

### **1. Fibres**

Domestic consumption of textile fibres totalled 960,300 tons (figure 1), an increase 3.1 per cent from 2005. Of this amount, 450,000 tons were cotton fibre and 510,300 tons were man-made fibres. Of the total consumption of man-made fibres, 260,500 tons were staple fibre, while 247,200 tons represented filament.

### **2. Yarn**

Domestic consumption of 360,500 tons of cotton yarn and of 427,000 tons man-made yarn made up the total yarn consumption of 787,500 tons in 2006, an increase 3.3 per cent from 2005.

### **3. Fabric**

The consumption of fabrics in 2006 totalled 727,000 tons, an increase of 2 per cent from 2005. Man-made fabrics led with 238,200 tons, followed by cotton and knitted fabrics at 220,500 and 268,300 tons, respectively.

### **4. Clothing**

Of the total consumption of 312,400 tons of clothing, which was an increase 5.7 per cent from 2005, 218,500 tons comprised woven fabrics. The remainder comprised knitted fabrics.

## **C. Exports**

### **1. Fibres**

In 2006, fibre exports totalled 349,062.1 tons, worth US\$ 465,930,000. Man-made fibres made up the largest proportion at 310,873.3 tons, worth US\$ 446,680,000. Woollen and cotton exports amounted to 2,288.7 tons, worth US\$ 13,550,000, and 992.2 tons, worth US\$ 820,000, respectively.

### **2. Yarn**

Yarn exports in 2006 totalled 307,649.9 tons worth US\$ 772,090,000, of which man-made yarn and cotton yarn accounted for 253,821.8 tons, worth US\$ 73,850,000, and 48,555.9 tons, worth US\$ 138,760,000, respectively.

### **3. Fabrics**

Exports of fabrics in 2006 totalled 160,460.7 tons, worth US\$ 969,220,000, comprising 92,746.6 tons of man-made fabrics (US\$ 522,720,000), 58,248 tons of cotton fabrics (US\$ 383,440,000) and 8,503.6 tons of knitted fabrics (US\$ 42,910,000).

#### **4. Clothing**

Clothing exports in 2006 totalled 4,401,722.8 tons, worth US\$ 3,464,700,000, accounted for 58.2 per cent of the total value of textile exports in that year. Clothing made from woven and knitted fabrics amounted to 68,426.46 tons and 4,333,296.4 tons, worth US\$ 1,475,630,000, and US\$ 1,989,070,000, respectively.

#### **D. Imports**

##### **1. Fibres**

Imports of textiles in 2006 totalled 502,409.6 tons, worth US\$ 707,980,000. Cotton and man-made fibres accounted for 422,055.1 tons and 56,983.2 tons, worth US\$ 562 million and US\$ 96.7 million, respectively. The United States was the main supplier of cotton fibre.

##### **2. Yarn**

Imports of yarn in 2006 amounted to 112,955.3 tons, worth US\$ 420,550,000. Man-made yarn and cotton yarn amounted to 96,062.0 tons and 14,450.6 tons, worth US\$ 337,810,000 and US\$ 56,940,000, respectively.

The major cotton yarn suppliers are China, Pakistan, the Republic of Korea, India, Taiwan Province of China, Japan and France. Japan is the principal supplier of man-made yarn, followed by Taiwan Province of China, Indonesia, the Republic of Korea, China and the United States.

##### **3. Fabrics**

Fabrics comprised the highest portion of total textile product imports (34.3 per cent) in 2006, amounting to 132,199.1 tons, worth US\$ 687.5 million. Of that, man-made fabrics accounted for 70,899.5 tons worth US\$ 306,730,000. Cotton and knitted fabrics amounted to 47,572.2 tons and 11,220.1 tons, worth US\$ 264,950,000 and US\$ 67,130,000, respectively.

Hong Kong, China followed by Japan, China, the Republic of Korea, Taiwan Province of China, Singapore, India and Pakistan are the main suppliers of cotton fabrics. The main suppliers of man-made fabrics are China, Taiwan Province of China, the Republic of Korea, Japan and Indonesia. Knitted fabric suppliers are Taiwan Province of China, Hong Kong, China, the Republic of Korea, Japan and China.

##### **4. Clothing**

Imports of clothing in 2006 totalled 16,180.3 tons, worth US\$ 173,350,000. Of those amounts, clothing made from woven and knitted fabrics accounted for 7,352.3 tons and 8,828.1 tons, worth US\$ 113.7 million and US\$ 61,660,000, respectively.

#### **E. Problems**

Although Thailand's textile sector has been growing rapidly and has become the country's leading industry, it is still facing the following problems:

- (a) Most exported textile products are commodity types that are subject to fierce competition and which attract lower prices;
- (b) The lack of product variety and quality, due to the shortage of skilled technical manpower and state-of-the-art technology;
- (c) The loss of its competitive advantage to lower cost countries, especially with regard to the labour wage rate. Currently, the comparatively higher wage rate in the Thai textile industry is pushing up the cost of production;
- (d) Few or no research and development activities and a lack of testing facilities for basic quality control in factories;
- (e) Reliance to a large degree on raw material imports (such as high-quality fabrics and yarn).

### **F. Opportunities**

Although the Thai textile sector is still experiencing some constraints, the potential remains for investment that will to serve local and export demands as:

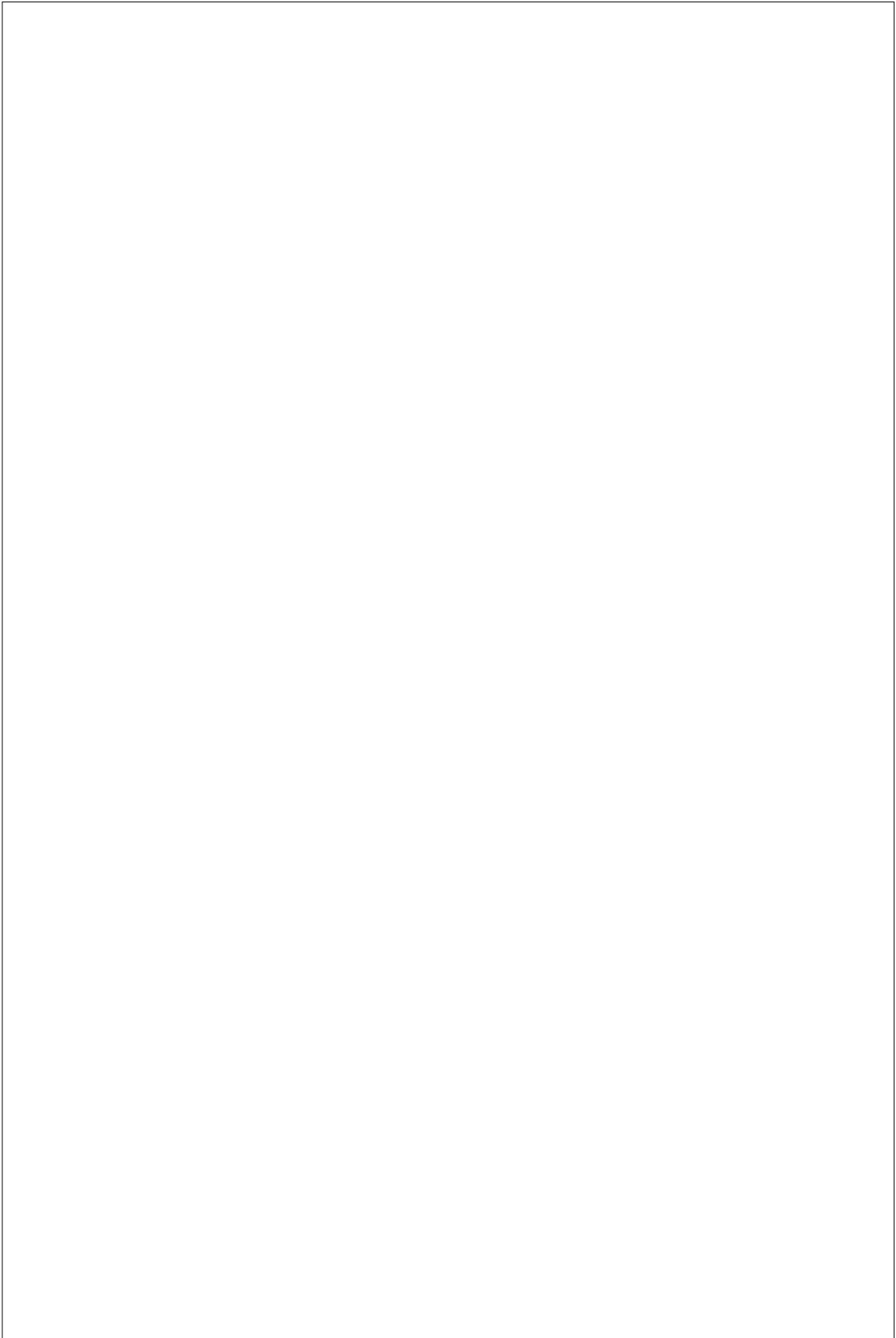
- (a) Wage levels in the Thai textile sector still offer an advantage over countries/areas with a more developed textile industry such as the Republic of Korea, Hong Kong, China, and Taiwan Province of China. Although Thailand may be at a disadvantage compared to lower-cost countries, the Thai textile workforce is still comparatively more efficient, especially in terms of skilled labour;
- (b) There are still opportunities for the Thai textile sector to expand its exports from the quota markets (such as the United States and the European Union) to non-quota markets and other new markets such as Indochina (the Lao People's Democratic Republic, Cambodia and Viet Nam), Myanmar and Eastern Europe (such as Poland and the Russian Federation). Indochina and Myanmar, in particular apart from serving as our market.
- (c) Reductions in tariffs and other barriers based on the ASEAN Free Trade Agreement and the GATT/WTO Agreement will enable further expansion of investment and trading in textiles and garments.

### **G. Development policy guidelines**

Following the removal of quotas in 2005, policy guidelines for the development of the Thai textile and garment sector were defined in a master plan. The main points of the master plan are summarised below:

- (a) Increase competitiveness by –
  - (i) Improving productivity through the introduction of the latest technology (including machinery);
  - (ii) Upgrading manpower skills and introducing modern management;

- (iii) Moving towards higher-value added products with a “Bangkok Fashion City” project;
  - (iv) Upgrading product quality and standards;
  - (v) Promoting foreign investment;
  - (vi) Encouraging Thai textile businesses to invest abroad.
- (b) Decentralize the textile and clothing industry, especially small and medium-sized enterprises, to rural areas;
  - (c) Concentrate on environmental and natural resources conservation through the introduction of new technology, in order to save raw materials, water and energy.
  - (d) Penetration of traditional and new markets by introducing a more aggressive marketing strategy.



### كيفية الحصول على منشورات الأمم المتحدة

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