

# Contents

- v *Friedrich-Ebert-Stiftung in Southeast Asia*
- vii *Editorial*  
*Axel Schmidt*
- 1 The Post-MFA Challenges for Small Developing Countries  
*Denis Audet*
- 13 Trends in the Garment Industry in South Korea  
*Joon-Soo Jon*
- 23 Taiwan's Textile and Garment Industry and Its Implications  
*Lee-in Chen and Kai-Fang Cheng*
- 35 A Survey of China's Apparel Industry  
*Xingmin Yin*
- 51 The Philippine Garment Industry after MFA  
*Rene E. Ofreneo*
- 61 Indonesia's Garment Industry before and after the Crisis  
*Thee Kian Wie*
- 73 Mauritius' Garment Industry in the New Situation  
*Sawkut Rojid*
- 83 Ready-Made Garment Exports: The Case of Sri Lanka  
*Saman Kelegama*
- 93 The Ready-Made Garment Industry of Bangladesh  
*Nazneen Ahmed*
- 107 Myanmar's Garment Industry in Sustainable Development  
*Myo Myo Myint*
- 113 The Garment Industry in the Lao PDR  
*Syviengxay Oraboune*
- 125 Garment Exports: The Case of Cambodia  
*Kum Kim and Seng Sovirak*
- 135 Textile and Garment Industry in Vietnam's Economy  
*Le Van Dao*

# Friedrich-Ebert-Stiftung in Southeast Asia

Friedrich-Ebert-Stiftung has been present in Southeast Asia for more than 30 years. Its country offices in Bangkok, Jakarta, Manila and Hanoi have been active in implementing national cooperation programmes in partnership with parliaments, civil society groups and non-governmental organisations, academic institutions and 'think-tanks', government departments, political parties, women's groups, trade unions, business associations and the media.

In 1995, the Singapore office was transformed into an Office for Regional Cooperation in Southeast Asia. Its role is to support, in close cooperation with the country offices, ASEAN cooperation and integration, Asia-Europe dialogue and partnership, and country programmes in Cambodia and other ASEAN member states where there are no Friedrich-Ebert-Stiftung offices.

Its activities include dialogue programmes, international and regional conferences (e.g. on human rights, social policy, democratisation, comprehensive security), Asia-Europe exchanges, civil education, scholarship programmes, research (social, economic and labour policies, foreign policy) as well as programmes with trade unions and media institutes.

*Dialogue + Cooperation* is a reflection of the work of the Office for Regional Cooperation in Southeast Asia of Friedrich-Ebert-Stiftung in Singapore: it deals with ASEAN cooperation as well as the Asia-Europe dialogue.

- *Dialogue + Cooperation* will tell you about our activities in Southeast Asia by publishing important contributions to our conferences and papers from our own work.
- *Dialogue + Cooperation* will contribute to the dialogue between Asia and Europe by systematically covering specific up-to-date topics which are of concern for the two regions.
- *Dialogue + Cooperation* will be an instrument for networking by offering you the opportunity to make a contribution and use it as a platform for communication.

Head of Office: Axel Schmidt

Address: 7500A Beach Road  
#12 - 320/321/322 The Plaza  
Singapore 199591  
Tel: (65) 62976760  
Fax: (65) 62976762

E-mail: [enquiries@fesspore.org](mailto:enquiries@fesspore.org)

Web site: <http://www.fesspore.org>

## Editorial Dialogue + Cooperation 2/2006

Dear Reader,

With the expiry of the WTO Agreement on Textiles and Clothing (ATC) on 31 December 2004, it was feared that those garment-producing countries that previously benefited from the quota system would be the big losers in terms of export earnings and jobs. This has been a particular concern in countries that earn their export revenues predominantly from textiles and clothing, many of them with least developed economies (LDE). Experts forecast that in the global competition, China and India would seize the lion's share of the market.

After more than a year of a quota-free world market, the picture is somewhat mixed. China and India have gained market share, but not to the extent predicted. Even some LDE, among them prominently Cambodia, were able to expand their exports. The main reasons for this development are twofold. Due to domestic administrative and technological constraints, India is not yet able to throw its full weight into the world arena. With regard to China, the US and the EU have invoked temporary safeguards that will curb textile and clothing imports from China into those markets until end of 2008. These circumstances have given some LDE a small breather.

However, there is no doubt that the post-quota world trade in garments will follow a different logic. Whereas previously investments in the garment sector were based on considerations such as the preferential margins of a given country and low labour costs, nowadays domestic and foreign direct investment will be determined by quite different factors and considerations. The increasing importance of lead time and design also in low-priced market segments implies that low labour costs are not sufficient to ensure competitiveness. High costs of utilities, poor infrastructure and long and unpredictable lead times carry more weight than the lower labour costs in many LDE, particularly in those located far from major markets.

Before 2005, the sourcing of clothing was largely influenced by quotas in the sourcing country, and the availability of raw materials was a secondary consideration. After 2005, in the absence of quotas, the availability of raw materials and a country's capacity to process them will become more crucial. Vertically integrated production of textiles and clothing—from the design to the packaging of the final product—will provide an important competitive advantage to exporting companies and countries. Purchasers will most likely concentrate on those countries that are competitive in terms of cost, quality, delivery time, productivity and compliance with labour standards.

All these factors will lead to the restructuring and relocation of the garment industry on a global scale. Even if the end of quotas has potential benefits for development in the long run, the changes in the trade regime will concern hundreds of thousands of enterprises and millions of workers in both developed and developing countries. The most vulnerable people, in particular women, and the most vulnerable countries, in particular the LDE, are likely to suffer most.

In order to minimise the costs and maximise the benefits of the liberalised trade in garments,

the textile and clothing producing countries need to undertake adjustments. With the new trade regime, some countries will not be able to compete. They will have to develop and implement restructuring policies to move away from textile and clothing production and reduce their dependency on trade in that sector. Other countries will still have a competitive advantage under the new environment. However, the long-term survival of their textile enterprises in the global market will require restructuring oriented towards product upgrading and market diversification. Thus, restructuring will be an important issue throughout the next years. In the process, however, some workers will lose their jobs, and alternative employment will have to be found for them. Those whose jobs are maintained will have to improve their skills to meet the changing requirements of the market.

Socially sensitive restructuring at national and enterprise levels can mitigate the negative economic and social impacts of rapid and major structural change and ease the transition to new opportunities. Governments have an important role to play in facilitating restructuring. They can, in consultation with the social partners, offer guidelines and incentives in developing a coherent industrial policy in which the contribution of the industry to social and economic development would be clearly identified. They can ensure a legal and regulatory environment in which enterprises can restructure, and they can limit social costs through active labour market policies.

Against this background, the Cambodian Institute for Cooperation and Peace and the Singapore-based Friedrich-Ebert-Stiftung Office for Regional Cooperation in Southeast Asia organised in Phnom Penh, Cambodia, on 5-8 June 2006 a conference on "Sustaining Development through Garment Exports: Cambodia and the Least Developed Economies". It aimed to take stock of the textile and clothing sector in some of the prominent producing countries one and a half years after the expiry of the ATC. The objectives were:

- to identify the strengths and weaknesses of these economies in coping with the new order of the world garment market;
- to evaluate the efforts of economic, social and political actors to develop strategies for change;
- if possible, to recommend appropriate measures for the transitional period of adjustment.

The current issue of *D+C* presents some selected contributions from this conference. Setting the tone for the conference, Dennis Audet argues that in the post-ATC period, countries that seek to maintain an export-led strategy in textiles and clothing should not call for an extension of the old quota system. They rather should shift from mere manufacturing to the higher value-added segments of the supply chain. His argument seems to be valid for most of the textile-producing developing countries. To achieve this goal, Audet urges these countries to tackle competitive weaknesses and domestic obstacles to growth through a market-based agenda of adjustment measures. His appeal merits closer attention. A look into the success story of those two east Asian countries that started their industrialisation with an export-led garment industry seems to give his view some support.

South Korea's textile and clothing industry ranked until 2002 as the country's third industry in terms of trade surplus, after electric/electronics and machinery. However, since then it has substantially lost ground. As Joon-Soo Jon points out, the reasons for this trend are threefold. Firstly, South Korea has over the years remained in the produc-

tion and OEM (original equipment manufacturing) segment of the value chain. Secondly, its companies have neglected to invest in the production of a larger variety of high value-added products. Thirdly, South Korean companies proved to be inflexible towards diversifying fashion trends.

In contrast, the history of Taiwan's textile and garment industry can be regarded as a manual for industrial development. Taiwan has mastered all major crises in the sector during the last 50 years through a mix of structural adjustments, sound industrial policies, innovation and diversification. Starting from low-end cotton weaving, going on to import-substitution of cotton by inventing synthetic fibres, Taiwan is today at the top end of the value chain. Nowadays, the textile and garment sector has lost its significance in the industrial landscape of Taiwan. Lee-in Chen and Kai-Fang Cheng, however, maintain that the experiences gained in the garment sector served to expand Taiwan's economy into other manufacturing sectors and to transform the agrarian country poor in natural resources into a high-tech economy.

At odds with evolutionist thinking about economic development is the Chinese laboratory. Here we find at the same time low-end, 'sweatshop' types of textile manufacturing as well as high-end fashion factories where labour is 'decently' remunerated. It's the sheer magnitude of China and its human resources that allows this simultaneity. In particular, the huge potential of China to produce on the low-end and export cheap clothing puts pressure on all developing countries competing in this market segment. Xingmin Yin's affirmation that the Chinese apparel industry plays only a very minor role in China's overall export performance doesn't seem to quiet the fears. However, China in the next years will not be self-sufficient in textiles, and it is the world's second largest textile importer. Therefore, China should be regarded not only as a threat but also as a huge market for other garment exporting countries.

In post-quota garment manufacturing, some southeast Asian countries will face considerable competition and pressure. Benefiting from previous privileged access to the US market, the garment sector there neglected to invest in skills upgrading and technology and stagnated at the low end of the value chain. According to Rene Ofreneo, the garment industry in the Philippines will decline. The future of Indonesia's garment sector seems better. Despite the constraints from which Indonesian manufacturers suffer like others in developing countries, Thee Kian Wie is prudently optimistic. With a high product diversification and often the latest machinery, Indonesia's apparel industry can produce at competitive costs to meet the international demand for garment products from the lower to the upper end of the scale. However, it is worrying that in neither the Philippines nor Indonesia do government, the private sector and social partners seem to be aware of the dimensions of the changes to the world apparel market and their implications.

A look at an African garment exporting country reveals similar features. Mauritius, the African economic miracle, has been hit by the post-quota era. All the efforts to develop the previous sugar cane-dominated economy into a sophisticated, fully fledged apparel industry seem at stake. Sawkut Rojid, however, argues that Mauritius will keep some advantages over other garment exporting countries. On one side, high labour costs are compensated by a high labour productivity. On the other side, government and garment manufacturers are restructuring the sector to move further up the production and value chain. In

addition, Mauritius benefits until the end of 2007 from privileged access to the US and the EU markets.

The garment industries in Asia's least developed economies share similar features. In general, they have no supporting industries or lack industrial backward integration. Therefore they have to import raw materials and machinery, are imbedded in a poor infrastructure and face administrative or bureaucratic hurdles. The sole asset of Asian LDE is the abundance of cheap labour. In the absence of other productive sectors, garment industries play a significant role in the national economies and absorb a substantial portion of the labour force that would otherwise be unemployed and struggling in the informal sector. Finally, most Asian LDE benefited in the past from quota and privileged quota-free access to the US and EU markets. What prospects does the liberalised trade in garments offers Asia LDE?

Under the quota regime, the garment industry became a vital part of Sri Lanka's economy. Manufacturing, however, remained at low productivity levels, and rising competition on a world scale in post-quota times puts Sri Lanka's garment industry under enormous strain. According to Saman Kalegama, there are divergent views of the perspective for the garment sector. Pessimists forecast that most of the industry will not survive. On the other side, optimists state that Sri Lanka is one of the few developing countries that has prepared itself for the aftermath in terms of public awareness, restructuring policies and skills upgrading. These factors would be beneficial for Sri Lanka in the medium term. Bangladesh, another Asian country depending heavily on garment exports, may lose considerably in open competition with China if, according to Nazneen Ahmed, no serious efforts are being made to overcome domestic structural bottlenecks that hamper the garment sector.

Due to market reforms, the garment industry in Myanmar experienced a boom in the late 1990s and became in 2000-2001 the largest source of foreign exchange earnings. In response to the deteriorating domestic political climate in Myanmar, international consumer boycott campaigns in 2002 and US sanctions in 2003 forced probably 50 per cent of Myanmar's manufacturers out of business and laid off some 50,000-80,000 workers. Due to unreliable statistical data, it is impossible to evaluate how Myanmar may position itself in the liberalised garment market. Therefore, Myo Myo Mint cautiously recommends that Myanmar's garment manufacturers search for non-US markets to compensate for the loss induced by international boycotts.

Landlocked Laos rejoices in a small but for the national economy significant garment industry. The second largest foreign exchange earner, after electricity, the garment sector provides some 20,000 jobs and additional incomes for the mainly rural population. Laos cannot compete with its larger neighbours and in particular not with China. However, it may maintain a garment industry if it specialises in upper-end niche products. In order to achieve this goal, Syviengxay Oraboune writes, the garment sector needs to improve at enterprise and industry level.

Contrary to common assumptions that Cambodia's garment exports would suffer considerably from the end of the ATC, they have experienced robust growth since then due to several circumstances. When the USA and the EU invoked temporary safeguards in 2005 to curb textile and clothing imports from China, Taiwanese manufacturers relocated their

production from China to Cambodia in order to benefit from its still privileged access to both markets. Furthermore, international buyers increased their purchases in Cambodia, honouring the industry's adherence to the 'Better Factory' initiative, a programme of the International Labour Organization for improvement of working conditions in the garment industry.

Since the mid-1990s, Cambodia has experienced a tremendous expansion of its garment sector. The country is highly dependent on this industry for export earnings and manufacturing jobs. Whether Cambodia can turn these momentary gains into a sustainable development depends on more than only compliance with core labour standards. Buyers decide their sourcing upon four factors: price, quality, lead time and social compliance. Cambodian labour costs are still among the lowest in Asia, a third of those in the Chinese textile industry. Labour productivity and product quality appear to be improving. However, with regard to lead time, Cambodia lags far behind all other Asian garment export countries, as Kum Kim and Seng Sovirak point out. Besides additional costs for unofficial payments and lengthy administrative procedures, these are the challenges the Cambodian government and to a lesser extent the garment manufacturers have to master if they don't want to be outrun by countries such as Vietnam.

Over the last 10 years, the garment industry in Vietnam has registered a remarkable growth and become the second largest export earner of the country. When the last barriers and quotas for Vietnamese apparel are removed with Vietnam's accession to the WTO by the end of 2006, the sector may experience a further boost but fierce competition as well. Vietnam is generally considered to be competitive in garment manufacturing because of low labour costs, high labour productivity and a high working ethos. Although Vietnam shares similar production parameters with Cambodia, there is one striking difference. Whereas in Cambodia fewer than 10 per cent of the garment factories are owned by Cambodians, in Vietnam some 60 per cent of all textile and garment firms are in private Vietnamese hands, according to Le Van Dao. The Vietnamese apparel industry needs considerable investments to move up the production and value chain. But with ambitious domestic entrepreneurship, it may succeed.

All papers and statements reflect the opinions of the individual authors. The Singapore office of Friedrich-Ebert-Stiftung would like to express its sincere appreciation to all contributors to this edition.

The Editor  
Friedrich-Ebert-Stiftung  
Office for Regional Cooperation in Southeast Asia

# The Post-MFA Challenges for Small Developing Countries

Denis Audet \*

## Overview

---

Rules governing world trade in textiles and clothing have changed drastically with the demise of quantitative restrictions on textile and clothing imports at the end of 2004 as agreed under the WTO Agreement on Textiles and Clothing (ATC). The end of the quota period occurred in an increasingly globalised world economy, in which production and marketing activities depend on business decisions that respond to competitive opportunities around the world. It represents a systemic change that is challenging the global sourcing channels formed over decades of artificial trade protection, and it entailed adjustment for all parties involved in the supply chain.

Seen from a longer term perspective, the end of quotas is part of an adjustment process that has taken place over both the WTO-scheduled 10 year phase-out period (1995 to 2004) and the long-term adjustment process in which industrial activities migrate with the industrial evolution of countries. Over the last quarter century, more than 4.5 million textile and clothing jobs have disappeared in developed countries as suppliers have responded to competitive pressures by shifting production towards faster growth products, modernising their equipment and adopting new working methods involving the transfer of sewing activities to low-wage countries. In spite of the quantitative trade restrictions, the developed countries' share of clothing imports originating from developing countries

jumped from 40 per cent to 65 per cent between 1980 and 2000 and has provided valuable production and trade benefits to a large number of developing and least developed countries (LDCs). Table 1 shows the increase of clothing exports to the European Union (EU 25) between 1995 and 2004, which exceeded 50 billion euros.

The end of quotas also highlighted a concern that a few of the larger developing countries, i.e. China and India, may capture a disproportionate share of the economic benefits arising from the liberalised market. China and India have increased their clothing exports to the world's largest markets (the European Union and the United States) by more than 40 per cent and 25 per cent respectively, and thus captured more than 100 per cent of the total import growth of these markets in 2005 (in effect displacing imports from other sources). Despite the imposition of safeguard measures on Chinese exports by both the United States and the European Union, few other countries have increased their total exports in 2005. As a result, the anxiety about the competitive strength of Chinese suppliers remains unabated a year after the end of quotas.

Concerned countries, particularly the LDCs, are seeking improved preferential access to developed countries' markets as a way to help them minimise their adjustment hardships and to compete more effectively with China and India. These re-

\* Denis Audet is an independent consultant specialising in trade policies. He was the lead drafter of *A New World Map in Textiles and Clothing: Adjusting to Change*, the OECD publication released in 2004 on the adjustment challenges resulting from the elimination of MFA quotas.



**Table 1. Increased Exports to EU 25, 1995-2004**

Country	Exports (EUR million)
China	15,882
Turkey	8,983
Romania	5,736
Bangladesh	5,504
India	1,780
Tunisia	1,745
Bulgaria	1,645
Morocco	1,591
Pakistan	965
Cambodia	952
Indonesia	855
Sri Lanka	779
Vietnam	718
Thailand	694

Source: Eurostat, foreign trade series, HS 61-62

quests emerged in the context of the Doha Round of multilateral trade negotiations

launched by WTO members in 2001. Other initiatives are also discussed in the Doha negotiations, such as the *zero-tariff sectoral initiative* for textiles sponsored by the EU, the *status quo initiative* sponsored by Turkey for tariff harmonisation and the calls to preserve preferential tariff margins in favour of developing countries (preference erosion). With still no consensus in sight for the formula tariff cut for industrial products (including textiles and clothing) at this advanced stage of the Doha negotiations, freer trade in textiles and clothing remains elusive.

Under relentless pressure to adjust, countries aspiring to maintain an export-led strategy in textiles and clothing need to shift their industrial expertise from manufacturing to the higher value-added segments of the supply chain. National suppliers need to place greater emphasis on education and training of services-related skills, such as design, material sourcing, quality control, logistics and retail distribution, and to encourage the establishment of joint structures in which domestic suppliers can share market knowledge and offer more integrated solutions to prospective buyers.

Against this increasingly competitive environment, government actions should be devoted to strengthening the capacity of the private sector to deal effectively with rapid change and growing competition in order to capture trade opportunities.

### ***I. The Multi-Fibre Arrangement period***

The elimination of quantitative restrictions under the WTO ATC at the end of 2004 challenged the global sourcing channels that were formed over decades of trade restrictions and entailed considerable adjustment for all concerned, especially clothing assemblers in remote low-wage countries. The ATC superseded the Multi-Fibre Arrangement

(MFA) regime of quantitative trade restrictions when it entered into force in January 1995 and set up the multilateral trade framework for trade in textiles and clothing applicable for all WTO members. The ATC provided for the elimination by 31 December 2004 of all forms of quantitative restrictions applied to trade in tex-

tile and clothing products, including those that originated from the MFA regime. The ATC phased itself out of existence at the end of 2004.

The import quotas initially imposed under the MFA contributed to the international fragmentation of the supply chain by accelerating the diversification of supply. This process worked to the disadvantage of the more efficient and quota-constrained suppliers, many of which subcontracted clothing assembly into low-wage third countries. Hence, the MFA benefited the least competitive suppliers, most of which were located in small developing countries and LDCs.

During decades of MFA-related quotas, the textile industry did not migrate to developing country locations as fast as the clothing industry. In the post-ATC period, there are no more artificial obstacles, i.e. quotas, to prevent the emergence of high-quality textile capacity in developing countries and stronger clusters of expertise. Moreover, there are neither quantitative trade restrictions nor MFA-related guaranteed market

access to mask the competitive weaknesses of textile-exporting countries. These weaknesses must be addressed if countries want to maintain an export-led development strategy.

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 the fashion-oriented and time-sensitive textile and clothing markets. The comparative advantage of developing countries in the assembly process, i.e. the sewing process, based on low wages, does not necessarily carry over into a comparative advantage in the management of the entire supply chain when all services-related dimensions are taken into consideration. Countries that aspire to maintain an export-led strategy in textiles and clothing need to shift their industrial expertise from manufacturing to the higher value-added segments of the supply chain. This can be done by upgrading their domestic skills in design, material sourcing, quality control, logistics and retail distribution.

## ***II. Trade Developments in Textiles and Clothing in 2005***

Both the European Union and the United States used safeguard measures against Chinese imports in 2005 in response to import surges. These measures contributed to reducing their total clothing import growth for 2005 to 7.7 per cent and 5.6 per cent respectively. Nevertheless, China stands alone as the outstanding beneficiary in 2005, with export growth exceeding 40 per cent in both destinations. In fact, increased Chinese clothing exports to the EU in 2005 (EUR10,735 million) exceeded the overall increase of clothing imports of the EU (EUR7,679 million). Few other exporters gained in 2005, with the exception of India. The trade story for the United States is basically the same, with import growth

exceeding 40 per cent and 25 per cent from China and India respectively.

The trade situation of Canada (the other country that still applied MFA quotas at the end of 2004) offers similarities to the EU and the US import developments, with increased Chinese exports in 2005 exceeding the total Canadian import growth. Detailed Canadian data covering domestic shipments and exports, shown in Table 3, provide some insights into the substitution effect that resulted from the removal of quotas. The relatively small textile and clothing import growth in 2005 of 2.7 per cent masked a sharp drop in domestic production (-8.9 per cent) and exports (-9.2 per cent) which in turn translated into a sharp

**Table 2. EU and US Clothing Imports (EUR million)**

	2004	2005	Increase	% Increase
European Union	99,572	107,251	7,679	7.7
United States	70,652	74,574	3,922	5.6

Source: Eurostat, foreign trade series, HS 61-62 and US Department of Commerce, Census Bureau, Foreign Trade Division

drop in employment of 10.1 per cent. The anxiety level of Canadian suppliers relative to the competitive strength of China and, more generally all import sources, remains high. The recent appreciation of the Canadian dollar relative to the US dollar and to other Asian currencies (*de facto* tied to the US dollar) has also contributed to this sharp domestic adjustment.

EU clothing imports for 2005 confirm the competitive advantage of exporting countries that have a tradition of domestic tex-

tile production. The four countries—China, India, Turkey and USA—that gained the most in the EU 25 market in 2005 all have in common an integrated textile and clothing production. The proximity of high quality textiles in these countries gives a competitive advantage to their clothing manufacturers in meeting short production and delivery commitments. The end of quotas has exposed the vulnerability of a fragmented supply chain and the competitive strength of a domestically integrated supply chain. Thus it should not be sur-

**Table 3. Canadian Clothing and Textile Production and Trade**

	1995	2000	2004	2005	Change 2004-05 Amount	%
Production (Can\$)	13,015	15,232	12,940	11,791	-1,149	-8.9
Exports (Can\$)	3,442	6,394	5,729	5,201	-529	-9.2
Domestic shipments (Can\$)	9,574	8,838	7,211	6,590	-621	-8.6
Imports (Can\$)	8,208	11,778	12,310	12,640	330	2.7
Consumption (Can\$)	17,781	10,616	19,521	19,230	-291	-1.5
Employment (persons)	127,368	149,719	123,920	111,426	-12,494	-10.1

Source: Industry Canada, Apparel & Textiles Directorate (MIB)

prising to see that US clothing manufacturers increased their exports to the European market by 110 million euros or about 20 per cent when, simultaneously, Bangladesh exports to the European market declined by 443 million euros or about 6 per cent despite their low wages and preferential access.

	EUR mil.	%
China	10,705	46.6
India	1,506	30.4
Turkey	650	4.2
USA	110	19.6
Vietnam	103	8.2
Bulgaria	34	1.6

Source: Eurostat, foreign trade series, HS 61-62

The emerging picture for some of the south Asian countries (Bangladesh, Cambodia, Pakistan, Sri Lanka and Vietnam) appears less drastic than originally anticipated, with small overall net increased exports in the combined US and EU markets, as shown in Table 5. For these countries, except Vietnam, increased exports to either the EU or the United States were more or less offset by reduced exports to the other. Several factors other than cost may explain this mixed export result, such as differences in preferential access to the United States or the EU, differences in commercial affinity or in mixed production/consumption.

All these countries have benefited from the effect of the safeguard measures against China, which motivated US and EU buyers to diversify their sources of supply. However, the true test of their competi-

tiveness will arise at the end of 2008, when Chinese exports are no longer constrained by safeguard measures. Even with lower wages than in China, preferential market access in developed markets and the effect of safeguards, these countries did not gain export market share in developed markets in 2005.

Change from 2004 to 2005		
	EU (EUR mil)	USA (\$ mil)
Bangladesh	-443	392
Cambodia	88	285
Pakistan	-278	354
Sri Lanka	-39	285
Vietnam	104	156

Sources: Eurostat, foreign trade series, HS 61-62, and US Department of Commerce, Census Bureau, Foreign Trade Division

Once the temporary safeguard measures lapse, the supply diversification factor is likely to disappear, thereby exposing all exporting countries to the competitive strength of Chinese and other integrated suppliers. In the meantime, exporters should not be complacent but use this opportunity to further their adjustment by tackling their domestic obstacles and competitive weaknesses. In particular, they have to reduce or eliminate any obstacles that impede their quick access to high quality textiles, e.g. obsolete customs procedures, import duties on inputs, inefficient transportation infrastructure and other regulatory inefficiencies. Access to high quality textiles is the most important competitive factor in the post-quota period.

### III. Trade Policy Challenges in the Post-MFA Period

Trade policies other than MFA-related quotas have also had a major impact on the development of geographical patterns of trade in textiles and clothing. It is argued that the elimination of import quotas has reduced the attractiveness of outward processing programmes (OPP) and, conversely, increased the attractiveness of other

preferential trade arrangements, such as regional trade arrangements (RTAs) and Generalised System of Preferences (GSP) regimes. The magnitude of economic benefits accruing under these arrangements varies greatly because of differences in scope and the specificity of the rules of origin that confer preferential access.

#### Outward Processing Programmes

Outward processing or production-sharing programmes involve the temporary export of textiles or pre-cut fabrics from the OPP initiator country to low-wage countries for final assembly, with the finished articles then being re-imported under preferential provisions. For low-wage countries, the assembly of imported fabrics into clothing is a simple form of industrial activity. OPP eligibility often acts as a booster for their export-oriented strategies by giving them instant access to high-quality inputs and foreign distribution networks. For developed countries, outward processing transactions strengthen the competitive position of domestic suppliers by enabling them to transfer labour-intensive sewing activities to low-wage countries. To make outward processing transactions worthwhile, the cost savings associated with low-wage assembly in offshore centres and tariff reductions must exceed the inherent additional costs of production fragmentation, namely two-way shipments, longer and larger inventory and added coordination to manage the fragmented supply chain.

Under the MFA-related quota regime, the inherent cost inefficiencies of outward processing transactions were partly masked by the trade-distorting impact of quota allocations. Moreover, outward processing transactions provided a protected market for textiles made in OPP initiator countries. Outward processing trade accounted for 15 per cent of the EU's external trade in textiles in 1995, and for 24 per cent of

total clothing imports by the United States in 1999 (WTO 2001). Since then, the importance of outward processing trade has considerably diminished in the European Union with the entry into force of several free trade agreements (FTAs) with neighbouring countries that made OPP almost redundant. In a less pronounced way, the importance of outward processing trade for the United States has diminished with the implementation of the North American Free Trade Agreement (NAFTA), but OPP eligibility was expanded under the Trade Development Act of 2000, and outward processing trade accounted for 10.9 per cent of clothing imports in 2003.

Without the trade-distorting impact of quotas, the inherent vulnerability of business models developed under OPP is exposed. On the one hand, outward processing transactions remain economically attractive only if the margin of preferential duty exceeds the difference between the OPP-related cost and the logistical cost incurred by competitive suppliers. With distance and time acting as trade barriers, there are no net cost advantages from outward processing transactions involving offshore assembly centres that are either geographically remote from the OPP initiator country or nearby centres with poor transportation infrastructure.

On the other hand, there are instances where offshore centres will be able to offer lower prices to buyers of clothing products

assembled from third country textiles. It means that the textile industry in OPP initiator countries loses its protected OPP textile export markets and has to adjust to intensified foreign competition in its domestic market. Simultaneously, OPP recipients that have gradually developed their expertise are conscious of their vulnerability and are requesting improved trade op-

portunities from developed countries to assist them in competing with the most competitive suppliers. Most requests concern the negotiation of FTAs with developed countries and/or improved GSP access. In any of those options, the improved access will mean more competitive pressure on the domestic textile industry of developed countries.

### **Regional Trade Arrangements**

---

In the post-ATC period, comprehensive RTAs can provide a useful policy framework to underpin the development of a regionally integrated textile and clothing supply chain and to facilitate economic diversification strategies for members, but they don't necessarily imply competitiveness. It is argued that a comprehensive RTA is a necessary but insufficient condition to promote trade flows and qualitative transformation in textile and clothing production. Although production and trade opportunities are created under comprehensive RTAs, certain domestic factors play instrumental roles in reaping the trade opportunities. Among these factors are: the ability to attract the right kind of lead retailers, brand name marketers and manufacturers; a pre-existing cluster of expertise; a striving and vibrant entrepreneurial environment; and geographical proximity to minimise the transit time of shipments.

Prior to NAFTA, access to US markets for Mexican suppliers was primarily driven by outward processing transactions in which Mexican suppliers merely assembled com-

ponents imported from the United States. With NAFTA, the trade rules have changed and all activities of the supply chain, not only sewing, can be performed in Mexico (and in Canada). In the context of NAFTA, Mexico has been able to promote the consolidation of its regional clusters of textile and clothing expertise and to move along the supply chain from the simple assembly of imported components, thereby bringing backward and forward linkages to the domestic economy (Gereffi *et al.* 2002). In a similar way, the customs union between Turkey and the European Union has improved opportunities for further integrating the Turkish textile and clothing markets into larger European markets. However, despite their integration process into larger regional markets, neither Mexico nor Turkey is shielded from the need to adjust to external competitive pressures as products originating from other countries, e.g. China, are increasingly competitive in both European Union and NAFTA markets. Indeed, Mexican textile and clothing exports to the United States dropped by 7.1 per cent in 2005, displaced by increased imports from China.

### **Stringent Rules of Origin for Textiles and Clothing**

---

Rules of origin are a necessary part of preferential trade arrangements, such as GSP, to ensure that the trade preference is granted to products that really originate from the beneficiary countries. Similarly, they are a necessary part of FTAs to preserve the pref-

erential treatment of trade for member countries—to avoid the problem of trade deflection, where imports enter the region through the member country whose import tariff is the lowest. There are considerable disparities in the rules of origin applied under vari-

ous preferential arrangements and in the utilisation rates of respective arrangements.

Specific and more stringent rules of origin are often applied on sensitive products, such as textiles and clothing, which make it more difficult for suppliers to achieve the regional content. This creates an incentive for manufacturers to source inputs from regional suppliers and may act as a trade barrier on its own. By limiting the sourcing of inputs

from regional partners, rules of origin may encourage a vertical integration of the production chain which may not reflect the least cost opportunities in a globalised environment. A further problem with specific rules of origin is that the determination of regional content for yarns, fabrics and final products requiring multiple components can become so burdensome and costly for suppliers that they prefer not to use the preferential arrangements

**Table 6. LDC Utilisation of GSP Programmes for Textiles and Clothing**

	T&C Imports	Dutiable Imports	Pref. Imports	Eligibility Rate (%)	Utilisation Rate (%)
Canada 2001	91.4	85.8	2.5	3.8	2.9
EU 2001	3,259	3,187	1,447	100	45.4
EU 2002	3,648	3,424	1,847	100	54.0
Japan 2001	54.5	47.5	25.2	100	53.1
USA 2001	3,575	3,567	13.9	0.5	0.4

Note: Import figures in US\$ million. Source: UNCTAD (2003), various tables

Several countries have recently improved their GSP regimes by broadening the scope of eligible textile and clothing products and/or offering comprehensive duty-free and quota-free treatment for products originating from LDCs. Table 6 shows the rate of utilisation of the GSP regimes for textiles and clothing originating from LDCs in 2001 and 2002. It shows very low utilisation rates for the United States and Canada (before its modified regime in 2003), and about half of eligible imports qualified for GSP preferential rates in the EU and Japan. In other words, slightly less than half of total textile and clothing exports did not meet the rules of origin and thus duties on imports were imposed at the MFN rates. Brenton and Manchin (2002) have argued that the main explanation for the low utili-

sation rate was the inability of preference-receiving countries to exploit the available preferences fully when these are subject to strict origin requirements and related administrative requirements.

It is argued that while rules of origin are necessary elements to ensure that preferential trade actually benefits its targeted countries, overly restrictive rules may not provide meaningful access and could lead to an under-utilisation of preferential access schemes. By contrast, liberal rules of origin may not benefit the targeted group of countries as much as originally intended, and the associated preferential access can invert the structure of tariffs with consequential problems for national manufacturers. Moreover, liberal rules of origin do not

necessarily confer competitiveness. Inherent competitive factors explain which countries are likely to gain the most benefits from preferential arrangements. The distance between remote trading partners entails long periods for shipments, and the amount of expertise in beneficiary countries seems to matter. Finally, the identity of foreign investors also appears to influence the patterns of input procurement.<sup>1</sup>

Canada's modifications to its GSP regime offer interesting lessons. In 2003, Canada granted duty-free and quota-free entry to all textile and clothing imports originating from LDCs that met the requirement that 25 per cent of content originate from any LDC, a GSP beneficiary or Canada. Four main issues are worth noting in the present context:

- (1) The liberal rules of origin granting the right to accumulate content percentage from any LDC or GSP beneficiary have allowed LDCs drastically to boost their clothing exports to Canada within a very short period of time.
- (2) The improved access has enabled many LDCs to expand their exports, but the distribution of gains was nevertheless concentrated in two beneficiary countries, Bangladesh and Cambodia.
- (3) Large trade gains also accrued to the largest developing countries, such as China and India, which shipped textiles to LDCs that were subsequently assembled into clothing products and later exported to Canada.
- (4) The duty-free treatment of clothing products has inverted the structure of tariffs with consequent problems for Canadian manufacturers, who have claimed unfair competition. But instead of backtrack-

ing on its liberal commitments, Canada announced a series of new tariff cuts in early 2004 to address the problems caused by inverted tariff protection and, simultaneously, launched a programme designed to improve production efficiency of Canadian suppliers.

One important lesson to be drawn from the Canadian experience is that liberal rules of origin require a comprehensive approach to ensure that the domestic processing industry also benefits from trade liberalisation programmes. The Canadian policy change regarding rules of origin has been highly controversial and met strong opposition at the time from domestic suppliers.

One year after the demise of the ATC, the anxiety about the competitive strength of China remains unabated, and vulnerable exporting countries are reiterating their demands to access developed countries' markets on an improved preferential basis as a means to compete more effectively with China and India. Because there is virtually no production of high-quality textiles in LDCs, any preferential access arrangements in favour of LDCs must take into account that they have to use textiles originating from third countries to compete on export markets. In these circumstances, it seems inevitable that in providing preferential access to LDCs, there will be some collateral benefits for the suppliers of high-quality textiles.

In the context of the Doha negotiations, LDCs are requesting tariff- and quota-free access to developed countries for all their exports. While there are favourable signals from most developed countries regarding such access, some are seeking to exclude trade-sensitive products, e.g. textiles and clothing, from such access. Moreover, there are no signals that duty-free access would come with less stringent rules of origin.

1. For a comprehensive discussion of the impact of rules of origin in textile and clothing trade see OECD (2004), Chapter 2: Market Developments and Trade Policies.



WTO members are still far apart on several key aspects of the Doha negotiations, and the LDC request is one element of a complex package of requests and offers that need to be settled. For policy makers in developed countries, one challenge is to draft rules of origin for their preferential arrangements that would mainly benefit LDCs and small developing countries that

are most vulnerable to competition from the large and integrated suppliers in China and India. Any improvement in the rules of origin under preferential trade arrangements would also increase the competitive pressure on the domestic textile industries of developed countries, a prospect that raises the apprehension of textile suppliers in those countries.

### **High Tariff Protection in Textiles and Clothing**

---

There are considerable differences in the level of tariffs applied on textiles and clothing and the occurrence of tariff peaks among developed countries. It is worth noting that the tariffs applied on textiles and clothing in China in 2002 were roughly equivalent to the average applied tariffs of OECD countries. All of China's tariffs are bound in the WTO, and most bound rates at the end of the implementation period will be much lower than its 2002 applied tariffs. This means that China is reducing its tariff protection over the period (OECD 2002). Moreover, having reduced its protection within the context of its 2001 WTO accession, China is reluctant to make further tariff reductions unless key trading partners are prepared

to offer it substantial concessions, a rather unlikely event.

Among other developing countries with strong export interests in textiles and clothing, such as India and Bangladesh, tariff protection remains stubbornly high, if not prohibitive. Indeed, tariff protection prior to the Doha Round was much higher for textile and clothing products than for manufactured goods in both developed and developing countries. In OECD countries, tariffs on manufactures averaged 6.2 per cent, on textiles 9.4 per cent and on clothing 16.1 per cent. The corresponding figures for developing countries were 13.5, 18.1 and 23.0 per cent (UNCTAD World Integrated Trade Solution Database).

### **The Doha Round**

---

In the context of the Doha Round or 'Development Round', India and other developing countries expect a rebalancing of market benefits in their favour, whereby developed countries would make larger concessions than those offered by developing countries (non-reciprocity).

To protect their preferential access to developed countries' markets, several developing countries, in particular LDCs, hope that developed countries will resist calls for non-discriminatory tariff reduction in textiles and clothing with a view to protecting their margins of trade preference. In a somewhat similar move, Turkey is propos-

ing a harmonisation of prevailing high tariff protection with no commitment to tariff reductions. This would, unfortunately, maintain the existing high tariff structure compared to tariffs imposed on other manufactured products. The only real tariff reduction proposal on the negotiating table is the 'zero-tariff sectoral initiative' for textiles sponsored by the EU.

Within the ongoing Doha negotiations, textiles and clothing are dealt with within the negotiating group on non-agricultural market access (NAMA), encompassing all industrial products. Ultimately, NAMA negotiating trade-offs will not be made exclu-

sively on the basis of textile and clothing interests, but within a larger set of economic and trade interests of WTO members.

In mid-2006, a consensus on a uniform tariff reduction formula across all industrial products, including textiles and cloth-

ing, remains elusive given the widespread anxiety regarding the competitive strength of China, the strong calls for rebalancing trade benefits and the absence of negotiating progress in agriculture (a prerogative for any progress in the Doha negotiations).

#### **IV. Concluding Remarks**

At the outset, the best adjustment strategy for countries seeking to maintain exports of textiles and clothing should not rest on tariff protection or preferential access, but on a thorough domestic strategy that tackles the country's competitive weaknesses and addresses domestic obstacles to growth. The opportunity provided by the safeguard actions taken against Chinese exports in 2005 will lapse by the end of 2008; therefore competing countries should waste no time in reinforcing their competitive strengths by focusing on a market-based agenda of adjustment measures involving:

(1) investment in qualified pools of expertise and the adaptability of the

workforce; faster customs clearance and quick tariff relief programmes for inputs;

- (2) an improved regulatory environment for essential business services, i.e. transportation, telecommunications, electricity and financial services;
- (3) stimulated collaborative innovation processes in dissemination and technological transfers; and
- (4) negotiation of improved market access for textiles and clothing, especially seeking to eliminate remaining obstacles to the establishment of retail distribution systems and to end distorting production subsidies, e.g. US cotton subsidies.

#### **References**

- Brenton, P. and M. Manchin. 2002. *Making EU Trade Arrangements Work: The Role of Rules of Origin*. Working Document No. 183, March. Centre for European Policy Studies.
- Gereffi, Gary, D. Spener and J. Bair (eds.) 2002. *Free Trade and Uneven Development: The North American Apparel Industry after NAFTA*. Philadelphia: Temple University Press.
- OECD. 2002. *China's Tariff Regime*. CCNM/TD(2002)9/FINAL. Paris: OECD.
- OECD. 2004. *A New World Map in Textiles and Clothing: Adjusting to Change*. Paris: OECD.
- UNCTAD. 2003. *Trade Preferences for LDCs: An Early Assessment of Benefits and Possible Improvements*. Geneva: United Nations.
- WTO. 2001. *Trade Policy Review of the United States*. Geneva: WTO.

# Trends and Structural Characteristics of the Garment Industry in South Korea

Joon-Soo Jon\*

The exports of South Korea's textile and clothing industry are significant for the country's economic development. During the early 1960s, the textile and clothing industry was nurtured to lead the country's export-oriented industrialisation with strong government support. The industry continued its rapid growth until it accounted for 35.8 per cent of Korea's total exports in 1970.

The textile and clothing industry ranked third, after electrical and electronics and machine industry, in terms of trade surplus during 1988-2002. During this period, the textile and clothing industry posted an annual trade surplus of \$10 billion or more. However, the surplus then began to decline: from \$10 billion in 2002 to \$9.4 billion in 2003 to \$8.8 billion in 2004.

This drop became a cause for concern that led government, business and universities to discuss the reasons for the decline and seek solutions for the problems.

It was generally agreed that South Korea's garment products were losing competitiveness in the world market. Thus there was a need for multiple measures aimed at making the country's textile and garment products more competitive internationally.

The world trade in garments moved into a borderless free trade environment in Janu-

ary 2005, when the quota system was completely abolished under the WTO. It has thus become mandatory for the South Korean industry to cope strategically with the new global trade environment in order to enhance its competitiveness and increase exports.

However, it was clear that there is still a way to go before its textile and clothing industry can cope with the new environment, for several reasons. First, South Korea still depends on OEM (original equipment manufacturing) deals to allow its textile and clothing industry to produce exports in volumes. Second, there is a lack of the investment needed to produce a larger variety of high-value-added products under the customised production system. Third, South Korean companies were found to cope ineffectively with the new diversified and personalised demand trend and demand for a new breed of creative, specialised designers.

The country faces even tougher barriers as emerging countries enter the international market as cost-effective exporters of textiles and garments, paying only a tenth or a twentieth of labour costs in South Korea.

The purpose of this study is to establish pro-active strategies for garment industry exports. These strategies are based on long-term trends in the world market and changes in export garment products.

## ***Trends in the Industry***

---

We will examine trends in the South Korean garment trade during the period from

1961 to 2005. Table 1 shows the figures on import, export and trade balance for coun-

\* Dean of College of Business Administration, Sogang University.

Year	Exports	Imports	Trade balance	% export growth
1961		0.1	-0.1	
1965	20.7	0.5	20.2	213.6
1970	213.6	0.5	213.1	32.8
1975	1148.2	3.8	1144.4	27.6
1980	2949.4	13.4	2936.0	3.3
1985	4450.0	16.4	4433.6	-1.1
1990	8019.6	150.7	7868.9	-13.2
1995	4981.7	1081.3	3900.4	-12.5
2000	5039.9	1317.6	3722.3	3.5
2005	3564.0	3655.0	-91.0	-17.9

Note: Export growth is relative to previous year.  
Source: UN *International Trade Statistics Yearbook* for each year.

try's garment industry during this period.

Garment exports posted a high growth rate until 1990. In 1989, South Korea ranked as the world's third largest exporter of garments, after Hong Kong and Italy, and its exports peaked at \$9.243 billion in 1991. A decline set in that continued, and in 2005 the country recorded a garment trade deficit for the first time.

There was a shift in textile shipments to China and the United States during the 2000s. The US share of South Korean textile exports was on the decline, while those to China and Vietnam were on the rise.

There was almost no significant overseas investment by the South Korean textile industry until the middle of the 1980s. But overseas investment began to surge during the latter half of the 1980s as a way to escape from worsening production conditions

Country	2002	2003	2004	2005
Total	15,674,492	15,253,355	15,191,564	13,945,747
US	3,258,126 (20.8)	2,967,992 (19.5)	2,841,719 (18.7)	2,326,939 (16.7)
China	2,453,531 (15.7)	2,652,111 (17.4)	2,763,857 (18.2)	2,942,720 (21.1)
Hong Kong	1,220,301 (7.8)	1,147,655 (7.5)	1,080,494 (7.1)	939,093 (6.7)
Japan	906,766 (5.8)	802,844 (5.3)	791,815 (5.2)	779,455 (5.6)
Vietnam	573,296 (3.7)	723,018 (4.7)	808,959 (5.3)	814,360 (5.8)

Note: Bracketed figures are % of South Korea's textile exports.  
Source: Korean Federation of Textile Industries.

	1995		2000		2004		Cumulative (to October 2005)	
	Number	Amount (\$mil.)	Number	Amount (\$mil.)	Number	Amount (\$mil.)	Number	Amount (\$mil.)
Total	190	244	203	119	326	328	3,256	3,344
To China	133	127	127	28	241	241	2,075	1,321
% to China	70.0	52.0	62.6	23.5	75.5	73.5	63.7	39.5

Source: Korea Export and Import Bank.

at home, caused by a shortage of labour and large wage rises. Investment in China has been on the rise since the normalisation of diplomatic relations between the countries in 1992 (Table 3).

As Table 3 shows, China accounted for 52

per cent of total overseas textile investment by South Korea in 1995. It also shows that the economic crisis of 1997 led overseas investment to drop. Indonesia, Vietnam and the US trailed China as the top destinations for South Korean textile overseas investment.

### ***Problems and Structural Changes***

---

With the removal of the Multi-Fibre Arrangement (MFA) in 2005, liberalisation replaced protectionism as the new rule governing the trade of garment products. The MFA was launched to protect developed country textile and garment industries through quota restrictions on imports. After textiles were included in the Uruguay round multilateral trade negotiations in 1986, the Agreement on Textiles and Clothing (ATC) became effective.

As part of the goal of a phased liberalisation of the textile trade within the WTO, the ATC phased out the MFA restrictions during the period 1995 to December 2004. The number of the textile and garment items designated for liberalisation in the ATC list stood at 795.

The end of the textile quota system has made

it possible for textile manufacturers to focus exports on their more competitive items, and thereby to increase export volumes. As a consequence, price competition in the world market is likely to intensify. Also, the fact that quotas no longer need to be bought should bring down export unit prices.

South Korean garment exporters were concerned about the liberalisation of the garment trade. And their fears began to become reality. After the scrapping of textile quotas, China and other developing countries made rapid inroads into major export markets, resulting in a drastic cut in South Korean shipments of garments.

The US accounts for half of South Korean garment exports. Therefore, the impact of the US scrapping quotas is felt more by South Korean garment exporters.

### ***Reduction in Garment Exports***

---

South Korean garment exporters suffered a setback as developing countries eroded their overseas markets. The won gained value against the US dollar, making South Korean products less price competitive. The textile industry did not differentiate itself from other Asian nations, remaining with a low value added and general production and export structure. China and other developing countries have attracted foreign investment, ramped up production and increased exports. Since the scrapping of textile quotas, importing countries have

turned to anti-dumping charges as a method of regulating textile imports. In the period from 1999 to June 2005, South Korean textile exports were subject to anti-dumping measures more often (29 times) than those of any other country (followed by China with 23 and Taiwan with 20). Also, overseas investments by South Korean garment companies have surged. As a result, garments produced in the offshore plant of South Korean companies have replaced some Korean-produced garments in the world market.

### **Surge of Chinese Garment Imports**

---

South Korea's import of garments has rapidly increased, from \$125 million (according to the Korea Institute of Industry and Technology Information; \$151 million according to UN statistics) in 1990, although it slipped after the economic crisis of 1998. Garment imports grew steadily, reaching a total of \$2.812 billion at the end of 2005 (again, there are differences between Korean and UN figures). There has been a surge of Chinese-made products into the low-end market and an increase of luxury garments from Italy and France. Lately, South Korean textile companies have introduced international prestigious brands and actively promoted them.

Also, South Korean companies are re-importing garments produced in their offshore factories. Overseas investment by the garment industry is expected to increase, because of higher domestic wages and production costs, leading to continued increases of garment imports.

### **Big Fall in Trade Competitiveness**

---

The trade balance of the textile and clothing industry has weakened since it posted a trade surplus of \$5.7 billion in 2000. The weaker post-crisis won helped South Korean garment producers to increase exports for a while. But the all-textiles trade surplus continued to drop until it turned into a \$500 million deficit in 2005, the first time that the industry recorded a trade deficit.

The deficit was due more to a steep fall in exports than to an increase in imports.

Garment imports increased by 9.1 per cent in 2005. In that year, China accounted for 76.1 per cent of South Korea's total garment imports, up from 70 per cent in 2000. There is an increasing transfer of garment production from South Korea to China and active competition among distributors to import low-priced Chinese garments. This has been a blow particularly to small South Korean garment producers.

A decline in the country's garment imports from Asian countries such as Vietnam, India and Indonesia was reversed after textile quotas were scrapped. Imports of garments from Thailand have steadily increased. The import of Asian-made garments has increased because these items meet local consumers' demand for reasonably priced low-to-middle-market garments. The US and European share of South Korea's garment imports has declined, although imports of high-priced quality garments are still on the rise.

Garment exports fell 21.8 per cent to \$3.56 billion during 2005, while imports increased by 9.1 percent, resulting in a trade deficit on clothing of \$90 million.

China gained most from the scrapping of the MFA. Since then, China's share of the US garment market has increased sharply at the expense of South Korea. The latter's share of the US garment market has declined from 9.8 per cent in 1990 to 1.6 per cent in the first half of 2005.

## ***Development Strategies on the Value Chain***

---

### **Position of South Korean Garment Industry**

---

The value chain is the process of taking products through the three phases of planning, production and sales. Its elements are

the two phases of programming and implementation. Programming involves preparation for and management of each func-

tion before implementation. Implementation involves carrying out the necessary function as it has been programmed.

It is relatively easy to obtain garment production technology. Therefore, planning and sales functions play a more important role than the production function on the garment industry's value chain. Within the value chain, planning and sales yield a higher value than production. In general, planning and sales functions tend to be more knowledge- and information-intensive than production. Production tends to be labour-intensive and offers low value added.

Of the value chain elements, programming tends to be information- and knowledge-intensive and offers high value added. Implementation tends to be labour-intensive and low value-added.

The more mature a country's garment industry, the more diversified and more personalised is the demand that that industry can meet. The country has developed the planning and sales functions to cope better with a diversified demand for garment products.

There has been a continuing transfer of the low-value-added areas and elements into low-wage countries. South Korea has scaled down on or phased out the domestic production of garments, while stepping up its offshore production capacity in order to cope with growing pressures such as wage rises, foreign exchange burdens, high interest rates and labour shortages. This shift took place as the country experienced a rapid rise of the electronics, machinery, heavy, chemical and construction industries.

However, most such moves were limited to setting up low-cost offshore production. But South Korean companies did not move much into functions such as sales, production and planning that would enable them to create information- and knowledge-intensive high values.

It takes a high level of investment, technology and information capabilities for the industry to add the planning and sales functions. These requirements are not normally met in low-wage countries.

South Korean garment companies specialise more in the implementation than in the programming element of the value chain. Subcontractors who have a sewing factory with a wage-based business model are typical of production implementation. These subcontractors do more sewing work rather than pattern production or fabric purchasing.

Since the end of the 1980s, there has been an ongoing migration from production implementation to production planning, because of changes in the industrial environment in both domestic and overseas markets. In 1999, wages for labour-intensive sewing work in Korea were 15 times higher than in China and 13 times higher than in Vietnam.

As a result, in most cases South Korean companies have transferred their production implementation to offshore factories, while keeping production planning at home. This means that they are using the home factory for work like designing, making patterns, grading and marking fabrics, while they use offshore affiliates as low-wage sewing factories.

Some South Korean exporters have entered the domestic market specialising in planning and sales functions for their domestic sales to overcome the limits of an OEM exporter and to enhance their international competitiveness.

South Korean companies, even if they started business with their own brands, tend to maintain OEM business for export. But they are seeking to move upmarket by migrating from production implementation to production programming in order to create a higher value added.

### South Korean Garment Industry's Competitive Status

---

The industry is generally weak in its planning capabilities, particularly in the core function: the ability to develop creative concept brands. Companies tend to imitate or come up with better versions of existing brands by attending overseas exhibitions or reading fashion magazines. While companies often have an outstanding creativity, they tend to lack ability to combine creativity with marketing.

Having lost their low-cost, skilled-labour competitiveness, South Korean companies are striving to move up the value chain to the planning function. As well, they have acquired know-how in the management of offshore factories—something that overseas buyers do not have. There are many cases in which South Korean companies have set up their offshore factories at the request of their buyers.

South Korean companies are weak in sales competition. Since their exports are usually

based on the OEM business model, they are sold through the sales network of the buying countries. Therefore, South Korean companies have little experience in this area.

Most South Korean garment exports are sold in the US, Europe and Japan, with their unit import price fixed. It is because of this fixed import price that exported garments sometimes lag behind domestically sold garments in quality and design. Also, most small and medium garment exporters tend to depend on general trading companies or garment specialists to export their products, since they do not have their own export marketing ability.

Export marketing requires big investment and involves a lot of risk, so even large companies cannot easily decide to make the investment. Domestically, the backwardness of distribution and practice is another cause keeping the industry's sales competitiveness low.

### A Strategy to Maximise the Value Chain

---

South Korea's garment industry is moving out of production implementation into production programming on the global value chain. The industry has carried out OEM-based production in the low-value-added segment of the world market. Meanwhile, the merchandising function—creating high value added—has been carried out by advanced countries. South Korea's role has been limited to being a manufacturing base for these advanced countries. This function has now been handed over to emerging countries as they try to catch up.

There are strategies by which Korea's garment industry can develop on the value chain.

**Switch within the value chain functions (implementation → programming).** Under the current circumstances, the most feasi-

ble option to make the garment industry more competitive is to enhance the production-implementation function by improving quality. Improved quality could bring a higher unit export price. Also, improved quality could enhance the overall image of the country as well as the image of its garment industry.

Also needed are increased efforts to improve the quality image of garment products, along with a transfer of production-implementation to offshore factories. This could best be achieved by switching the domestic function from production-implementation to production-programming.

Concern has been voiced about the erosion of the domestic manufacturing base as a result of transferring production of low-



to-middle-priced products to offshore factories. However, it is a necessary part of functional migration within the value chain.

**Switch across value chain functions (production → planning and sales).** It is necessary to enhance the competitiveness of promotion companies. Their use is a transitional option from production-implementation to merchandising. Competitive promotion companies could help achieve a switch from OEM to branded companies. Promotion companies can cope rapidly with new global trends so that garment companies can increase export opportunities by attending overseas exhibitions or auctions.

It might make sense for companies to spin off and farm out their production implementation so that they can specialise in the planning-programming and thereby respond swiftly to global market changes.

It would make strategic sense to replace small promotion companies with a global marketing entity. It could also expand marketing and planning through production of promotional materials, provision of exhibition venues, connection with foreign buyers etc.

**Establish a textile industry cluster to fit regional characteristics.** It has been agreed there is a need to switch the focus of the South Korean textile and garment industry from production-implementation to high-value systems for a variety of products in limited batches. To this end, it is necessary to nurture the demand-triggering industries such as fashion and design, and to support the associated technology, information and labour infrastructure.

The model is the Daegu textile project (or

Milano project), launched in March 1998, with the aim of nurturing Daegu's textile industry to become a strategic industry by transforming it into an up-to-date, high-value-added industry. It consists of 17 projects in four areas: six projects aimed at adding high value to textile products, three projects to bolster the fashion design industry, two projects for building textile industry infrastructure and six projects for developing technology and improving productivity. It has also been suggested to build regionally based clusters, such as a knitting industry research institute in Ilsan, a textile technology assistance centre in Gongju, a silk research institute in Jinju, a textile technology assistance centre in Gyunggi and a dyeing pilot plant in Shihwa.

Advancement and globalisation of fashion design. The 'hallu' wave of Korean cultural products has swept across Asia. It could provide a chance to extend marketing spread into overseas markets and bolster the fashion design industry by nurturing a new breed of creative fashion designers.

In 2005, a Korea Textile Fashion Contest was held successfully in Shanghai. A similar event could be held in major cities of Brazil, Russia, India and China that can serve as South Korea's overseas marketing hubs. They can be a base to provide information such as surveys of buyers and local market trends, and to hold exhibitions or operate regular showrooms.

Also, attempts are to be made to expand the export of fashion branded products into the advanced countries like the US or France to compete better with advanced counterparts and to globalise the fashion design industry.

## **Conclusion**

We have studied the pattern of structural changes undergone by South Korea's garment industry. Then we identified the dif-

ferences that set the South Korean garment industry apart from the rest of the world's major garment exporters.

In order for the garment industry to continue its growth, it must move beyond production-centred functions on the value chain, and switch to the planning and sales functions. It has achieved significant progress in its strategy to move from production implementation to production planning. On this basis, it needs to seek a swift move towards the high-value-added functions in the way that advanced garment exporters have moved.

Second, it must make the most of the off-shore production that has become part of South Korea's production planning. The labour-intensive nature of the garment industry has caused the world's advanced countries to transfer production processes to developing countries or turn to foreign direct investment, while bolstering their industrial base by investing in automating and improving their domestic production facilities.

It could make strategic sense for South Korea similarly to move upmarket into high-value-added production. Meanwhile, it could use foreign direct investment as a means to transfer its low-priced, mass-produced products to obtain a local sales foothold to increase its share of the low-to-

middle-priced garment segment.

Third, it must develop its own trademark that can yield high value added. South Korea could learn from major garment exporting countries like the US, Italy and France that have achieved high values for their own trademarks on the basis of their development and marketing ability. A combination of global marketing and originality is what keeps them ahead.

It is inevitable that South Korea's garment industry will stay with the current OEM exports in the short term. However, it is necessary gradually to increase the share of planning and suggestion types of OEM exports. The country will eventually have to switch from a production-centred to a sales- and planning-based export system under which it will be exporting high-value-added garment products with their own brand. Small-to-medium companies might team together to build a joint overseas sales entity or to develop a joint trademark.

The reversal of the garment trade from surplus to deficit in 2005 should be taken as a wake-up call to increase efforts to switch to higher level value chain functions.

## References

2005. "Liberalization of Textile Trade and Strategies for Improving International Competitiveness". KIET Industry Economics.
2005. "The Change of Trade in Garment Industry After Textile Quota Abrogation". KIET Industry Economics.
- Cline, W. 1987. *The Future of the World Trade in Textiles and Apparel*. Washington, DC: Institute for International Economics.
- Hunter, N.A. 1990. *Quick Response in Apparel Manufacturing: Survey of the American Scene*. Manchester: Textile Institute.
- IMF. 2001. International Financial Statistics.
- International Textile News*. 2002.02.18.
- International Textile News*. 2002.03.04.

- OECD, International Trade by Commodities Statistics CD-ROM.
- Ji Hye Kyung, 2002. "Trends and Structural Characteristics of Clothing Trade in Korea: 1962-2000". Department of Clothing and Textiles, Graduate School of Seoul National University.
- Kim Lee Pack 2003. "A study on the restructure of Korean textile industry". Graduate School of Economics, Yonsei University,
- Kim Mi Sun. 1999. "A study on the strengthening of international competitiveness for Korean garment industry". Department of Foreign Trade, Graduate School of Trade, Sungkyunkwan University.
- Korea Federation of Textile Industries. 2005. *The Status of Textile Trade and Trade Competition Agreement*.
- Korea Institute of Industry and Technology Information, Korean Apparel Industry , 1989.
- Korea Research Institute. 2006. *Trade Environment and Export/Import Forecast, 2005*.
- Korea Textile News*. 2001.05.06.
- Park Jin Soo. 1994. "A Study on Korean industrial competitiveness: A criticism and revision of Porter's diamond model". Department of Economics, Graduate School of Seoul National University.
- Park Nam Gyoo. 1991. "Empirical analysis on international competitiveness life cycle of Korean industries". Department of Business Administration, Graduate School of Seoul National University.
- Park Seung Chan 2003. "A Study on Usage Patterns and Performance of TPL". Ph.D. Programme in International Trade, Graduate School of Konkuk University.
- Samsung Economic Research Institute, 2000. *21C Development Strategy of Korean Major Industry*.
- Textile Intelligence Limited. 2001. *Textile Outlook International*. January.
- UN, *Commodity Trade Statistics*.
- UN, *International Trade Statistics Yearbook*.
- UN, Statistics Division, Commodity Trade Statistics Data Extract Service.
- UN, Statistical Division, <http://unstats.un.org>.

# Taiwan's Textile and Garment Industry and Its Implications for Less Developed Countries

Chen Lee-in and Cheng Kai-Fang\*

## 1. Introduction

---

Taiwan's economic development from the 1960s to 1980s was so successful that it was hailed as an 'economic miracle' (Fei, Ranis and Kuo, 1978, 1979; Kuo, Ranis and Fei, 1981; Ranis, 1992). Taiwan's success story is marked by growth and structural shifts (Kuznets, 1979). During this period, Taiwan achieved an average annual GDP growth rate of 9 per cent along with relatively little income inequality. Government macroeconomic reform and industrial policy can be regarded as major factors in this performance. The textile and garment and electronics sectors were the most important industries in producing the miracle. Even though economic performance slowed in the 1990s, growth rates remained between 6.30 and 7.85 per cent before the Asian financial crisis. After 1997, GDP growth rates fell to between -2.17 and 6.07 per cent. The share of the textile and garment industry is no longer as important in GDP and exports.

Regardless of whether a country is big or small, when its government adopts a policy of exporting in order to establish one particular industry, complementary macroeconomic measures on international trade, foreign exchange, tax incentives and infrastructure are needed. Industry-specific measures also need to be added, revised or innovated periodically. This paper pays spe-

cial attention to such policies.

Industrial policy can not ignore the principles of industrial economics. For labour-intensive industries, market competition is better than oligopoly or monopoly; production efficiency can be achieved via scale economies or economies of scope. Taiwan's textile development went through economies of scale in cotton-yarn weaving and then pursued economies of scope (wool and various artificial fibres). Cambodia and other least developed countries (LDCs) need to assess their conditions (including climate, raw materials supply, labour quantity and quality, technology and education) in order to achieve sustainable development.

This paper elaborates the above concepts to explain Taiwan's textile development. Section two examines the history of Taiwan's textile development in six stages and with some statistical evidence. Section three elaborates the role of government policy and its effects. Here, policies and measures to foster many small and medium enterprises to achieve competition and textile-specific policy, regulations and institutes should draw special attention. Section four describes the current labour market in the textile industry. Section five draws conclusions and policy implications for LDCs.

\* Dr. Chen Lee-in is a research fellow at the Chung-hua Institute for Economic Research. Dr. Cheng Kai-Fang is deputy director, Centre of Industrial Economics, Intelligence and Training, Taiwan Textile Research Institute (TTRI). The data and basic information provided by the TTRI are highly appreciated. However, the opinions expressed here are those only of the first author, not necessarily of the TTRI.

## 2. Development History of Taiwan's Textile Industry

Taiwan was colonised by Japan for 51 years before 1945. Very few cotton-yarn textile factories and weaving mills existed, and most

were destroyed during World War II. Therefore, the development history of the textile and garment industry begins in 1945.

### Recovery Stage (1945-51)

After WWII, Taiwan was left with only two cotton-yarn factories and 14 weaving mills and about 800 filament weaving machines. The overall length of cotton cloth produced in that year was only some 2 million yards. The equipment was out of date; supply could not meet demand and therefore imports were huge. To meet basic demands, the government (the Republic of China) encouraged the establishment of new factories. Along with protective measures, such as control of textile imports, the government contracted weaving services and provided capital and material resources. Due to a high rate of return on investment, the textile industry grew very quickly (Table 1). It proved to be very helpful to the boom of the industry that several textile companies withdrew from mainland China as the ROC government relocated to Taiwan in 1949.

The most crucial factor for Taiwan was US aid. During 1951 to 1957, the US government provided US\$230 million worth of

Year	Cotton yarn (spindles)	Weaving machines	Output (NT\$ m)
1945	8,268	428	
1946	10,664	794	
1947	14,564	1087	
1948	18,108	1791	
1949	23,787	2557	70.5
1950	50,020	3326	286.0
1951	98,536	5205	620.8

Source: Lee et al., 1952.

cotton, which made up about 20 per cent of total material aid. According to Lin (1994), there were about 200 private weaving mills in 1950. By 1953, the total had increased to 1,228 firms, one-tenth of the total number of private firms at the time, second only to food processing factories and kiln mills.

### Cotton Product Development Stage (1952-61)

The major textile products at this stage were still made from cotton. Three years after withdrawal from the mainland and with expertise from US aid, the ROC government began working on the first four-year national development plan (1952-55). The development goal for the textile industry was to support the manufacturing import substitution policy. For the textile industry, the government set the policy slogan, 'Importing yarn is better than importing cloth; importing cotton is better than importing yarn'. With encouragement from

various tax incentives, many private firms imported weaving machines and materials. As a result, the textile industry entered a stage of speedy growth. The value of cotton-yarn production doubled within four years. With further encouragement in the second four-year plan (1956-59), which focused on meeting domestic demand and improving quality, the cotton-yarn industry finally gained some export contracts in 1960. Exports grew very quickly. Only three years later (1963), the volume of export sales of cotton cloth had exceeded domestic sales.

Exports of cotton yarn exceeded the domestic demand in 1966.

Another notable development during this stage was the first locally produced artificial fibre, by the China Man-Made Fibre Corporation in 1957. This innovation was intended to develop self-sufficiency in raw

materials for the textile industry. It proved Taiwan's capability of developing the textile industry from end-products to upstream fibre manufacturing. The new artificial fibre was named after Lai-Chu (the queen of an ancient empire, who invented silk production from worms three thousands years ago) to honour the historic achievement.

### **Stage of Export Expansion and Emerging Product Scope (1962-71)**

The cotton yarn and cloth weaving industries continued growing. Weaving spindle production grew from 430,000 in 1962 to 1.25 million in 1971. Export capability continued to strengthen, which steadily increased the export share of production and transformed the cotton textile industry into an export-oriented sector by the early 1970s.

US aid ceased in 1968. This significantly influenced the internal structure of the textile industry. The supplies of cotton and capital were suddenly suspended. To cope with this, Taiwan textile manufacturers started to invest in artificial fibre plants so as to diversify sources of raw materials. The product assortment diversified to Lai-Chu, nylon and polyester filaments. Various artificial fibre products grew rapidly, laying the foundation of an artificial fibre processing industry. The diversification began with the China Man-Made Fibre Corporation, which in 1964 set up a polyester fibre factory with a capacity of 250,000 polyester filaments daily. In the same year, the CMFC proposed a second plant for producing polyester staple. Formosa Plastic entered the market and started to produce acrylic staple in 1967. Then many other artificial fibre companies were established; by 1970 there were 16 companies producing artificial fibres. Most of the companies were set up with a vision of developing fibre production linked to processes such

as dyeing, printing and finishing. Integration laid the foundation for the further development of Taiwan's synthetic fibre industry in the 1980s.

On the other hand, because the US government inaugurated import quotas on cotton products, the national four-year development plan started to pursue adding value in industries linked to textiles, and the garment industry began to grow from this stage.

Improved technology was reflected in export statistics of artificial fibre and textile products. During this stage the value of textile products grew at an average annual rate of 22.7 per cent. The added value "share of textile products in all manufacturing industry grew from 16.3 per cent in 1959 to 20.3 per cent in 1972. In the same period, the employment share of the textile industry grew from 22.4 per cent (110,000 persons) to 28.9 per cent (350,000).

During this period, Taiwan's textile industry made significant progress quantitatively and qualitatively. This period was also critical because material and components supply chains were formed and a manufacturing division of labour was fostered within domestic enterprises. Textiles became the most important export industry and source of foreign exchange.

### **Growth Stage (1972-81)**

The industry's continued growth led to a great increase in weaving shuttles and open-

ended weaving machines, with 3.54 million and 650,000 spindles respectively in

1981. The market for traditional cotton yarn and cloth had become saturated. Artificial fibres became the basis of the second wave of Taiwan's textile industry.

Thanks to flourishing exports, Taiwan's artificial fibre plants expanded to the level of economies of scale, dramatically reducing the average product cost. The core technology focused on developing synthetic fibre. Among various human-made fibres, nylon and polyester grew most rapidly.

During this stage, the world encountered two energy crises. In 1973, as the price of petrochemical raw materials sky-rocketed, the price of artificial fibres rose accordingly. Since the increase in prices was much greater than the increase in production costs, the profit on artificial fibres at one point reached 40 per cent, which led to over-investment in fibre factories. Within only four years, 12 new plants were built. At the end of 1974, it was estimated that Taiwan's artificial fibre production capacity was 1,700 kilograms a day, making it number four in the world in production of artificial fibres. When the second oil crisis occurred in 1979, the oil price rose more than 60 per cent, which induced the price of artificial fibre to soar again. However, due to over-capacity, and because the demand of downstream production did not increase as much, Taiwan's artificial fi-

bre business faced a crisis that eventually led to closures, restructuring and mergers of competing firms.

Textile import quotas were another important issue. In 1961 the US enforced the 'Short-Term Agreement on Cotton Textile Products' on Taiwan, which inaugurated a new era of international quotas. The US government used the same agreement with Taiwan in 1962 and 1967. Quotas were even applied to wool products in 1971. The European Community followed with a similar import quota in 1970. In 1974, when the Multi-Fibre Arrangement (MFA) became effective, the US, Canada and EC signed bilateral agreements with the Taiwan government. By then, quotas had been extended to the export of cotton, artificial fibres, wool, yarn, cloth and garments. The quotas applied to various processing levels.

Even though quotas had become such a sensitive issue, the ROC government still encouraged the export of textiles and garments. Garment and accessory exports in particular gradually became Taiwan's core export products in this stage, due to market demand, technology and financing. The export value of the textile and garment industry increased from US\$1.24 billion (or NT\$47.1 billion) in 1973 to US\$4.12 billion (NT\$148.3 billion) in 1980.

### **Maturity and Upgrading of Technology (1982-91)**

---

The 1980s in general were a stable growth period for the world economy. Leading economies strove to recover from the two oil crises. Taiwan's textile entrepreneurs sought to solidify their technology and market shares. The government proposed a 10-year national development plan (1980-89), and developing textile machinery was identified as one of the major industrial policies. High speed equipment was introduced; no-shuttle weaving machines replaced the traditional machines. Product quality and the technology of the textile

industry were highly improved and achieved international competitiveness.

The peak year of Taiwan's textile and garment industry was 1987. The total of textile production (including artificial fibres, weaving and garments) reached NT\$559.34 billion, and the share in that of garments was also the highest ever, 37 per cent. Afterwards, due to mainland China's high demand for Taiwan's yarn and fibre, the export of those two textile materials increased very rapidly while the share of garments in textile ex-

ports dropped steadily. By 2004, the share of artificial fibre increased to 31 per cent and garments dropped to 11 per cent.

In the latter part of this stage, protectionism in international trade and the rise of new textile producers led to an increase in international competition. As well, Taiwan faced the pressure of a labour shortage, rising wages and appreciation of the NT dollar. Some labour-intensive textile firms started to move their factories to southeast Asian countries (at this time, investment in mainland China was illegal).

For those remaining in Taiwan, technological breakthrough had become the major goal. Although polyester fibre was still the key product, leading firms started to develop polyester filament and nylon staple for possible industrial use. The new R&D focused on hyper-thin fibres. On the basis of its integrated structure, Taiwan's textile industry had been transformed from labour-intensive to capital- and technology-intensive. The core competence had shifted to artificial fibres and their related weaving products. Taiwan became internationally known as a leading synthetic fibre country.

### **Transformation, Outward Investment and Innovation (1992-)**

Due to changes in the external and domestic economic environment, such as labour shortages, NT\$ appreciation, trade liberalisation, the rise of new textile producers and a division of labour across the Taiwan Strait, the textile industry began losing its international competitive advantage in the 1990s. Especially the labour-intensive parts of production, which was mainly conducted by small and medium enterprises, moved to China so quickly that the original supply and value chains were broken. Up to 2004, there were only 142 and 155 cases of outward FDI by textile firms and garment and footwear firms respectively, while there were 1,055 and 554 cases respectively of those sectors indirectly investing in mainland China. In 2005, the contribution of the garment industry dropped to 1.07 per cent of Taiwan's manufactures and 0.35 per cent of GDP.

The irreversible trend of competition from low-cost producers has been the biggest challenge since the mid-1990s. The industry is currently encountering several challenges, which can be categorised as follows:

- technological breakthroughs in various new functional fibres or materials;
- environmental standards of pollution emission;
- shortage of testing and verification capacity regarding technology and indus-

- trial e-commerce infrastructure;
- SMEs' lack of financial support for R&D;
- lack of human resources in R&D and international marketing;
- lack of an information sharing system for international production, marketing and new technology;
- marketing problems, such as oversupply of artificial fibres, small domestic market, textile materials production overly focused on garments, higher prices than the competition and dependence on high price/quality imported products.

Losing competitive advantage in labour-intensive types of international production, the textile enterprises remaining in Taiwan, with government assistance and R&D redirection, strove to transform themselves into manufacturers of high value products. In addition to utilising their existing advantage of upstream artificial fibre links and economies of scale, the production of middle and downstream products is focusing more on newly developed materials and technologies.

Nowadays global textile competition can be classified as low labour costs vs. high unit prices and innovation. Taiwan is taking its position as the latter. Firms and the government are moving to research and de-



**Table 2. Significance of Garment Industry to Taiwan's Economy**

Year	Number of enterprises	Export sales (NT\$ million)	Total sales (NT\$ million)
<b>2001</b>	4,801	58,905	139,565
% of manufacturing	3.40	1.84	1.77
% of GDP	0.44	0.94	0.58
<b>2002</b>	4,568	56,038	126,754
% of manufacturing	3.30	1.54	1.50
% of GDP	0.40	0.80	0.50
<b>2003</b>	4,400	52,951	124,954
% of manufacturing	3.20	1.25	1.35
% of GDP	0.38	0.72	0.45
<b>2004</b>	4,386	51,807	127,751
% of manufacturing	3.19	1.02	1.15
% of GDP	0.37	0.61	0.42
<b>2005</b>	4,382	45,021	119,960
% of manufacturing	3.16	0.88	1.07
% of GDP	0.35	0.52	0.35

velop high-value industrial usage and functional textile products. It is expected that the composition of clothing, home decoration and industrial use of textile products will change from 8:1:1 in 2000 to 6:2:2 in 2010. This transformation will need domestic and international collaboration as well as cross-industry cooperation.

After textile quotas, Taiwan's textile industry faces more intense competition and challenges. The government encourages textile enterprises to devote themselves to transmuting the image 'made in Taiwan' into 'invented

and innovated in Taiwan'. The new R&D focuses are nano-textiles, technology, comfort, health and new synthetic textiles. Integrating diversified industry wisdom into the new materials and products is critical. .

Due to outward investment, the value of textile and garment output has declined in recent years. Total production declined from NT\$578,299 million in 2000 to NT\$526,936 million in 2004. The relative value shares of artificial fibres, textiles and garments/accessories have changed from 21:63:16 in 2000 to 33:57:10 in 2005.

### **3. Government Policy and Its Effect**

The Taiwan government adopted policies in each stage to provide a suitable business environment for the development of manufacturing industry. Among them, one of the most important was fostering the

growth of small and medium enterprises. Industry-specific policies to respond to internal and external environmental changes were also crucial. This section elaborates on those policies.

#### **National Economic Development and Planning**

Taiwan is well known not only for textile exports. After 1984, electronics and electri-

cal machinery together became Taiwan's top exports (although textiles remained most

important for foreign exchange because these exports do not rely as much on imported materials). An export-friendly environment contributed to the shift from an agriculture-based economy to an industrialised one.

The first important administrative action was tax exemption for export goods in 1954. To encourage exports to be produced with local materials and thus save foreign exchange, the government kept interest rates low for export firms and implemented a high import tax. To protect infant domestic industries, the average import tax rate of industrial products was 46 per cent in 1957. Two critical reform packages to encourage foreign direct investment were passed, regarding the trade and foreign exchange system in 1958 and 19 articles of economic and finance reform in 1959. In the following years, the Statute for Promoting Investment

(1960), the tax-exempt warehouse/factory system (1962) and the Statute for Developing and Managing Export Processing Zones (1964) were passed or established. These actions fostered a promising environment for foreign and domestic investors.

The policy slogan in the 1970s was 'the second phase of import substitution and steady export expansion'. To promote exports, the China External Trade Development Council was set up in 1970. To deepen manufacturing R&D, the Industrial Technology Research Institute was established in Hsin-Chu county in 1974. To promote high-tech industries, the Hsin-Chu Science Park was established in 1980 and the Statute for Promoting Industry Improvement was enacted in 1991. These policies helped businesses to grow and entrepreneurs to run them more professionally.

### **Development of Small and Medium Enterprises**

One profound influence on the economic structure of Taiwan has been the Statute for Developing Small and Medium Enterprises. It deserves separate analysis.

From the very beginning of economic development, the government paid attention to maintaining an SME-friendly macroeconomic environment. Policies were adopted to help them obtain capital and materials. Some funds for bank loans were designated for SMEs only. Therefore the definition of SMEs has been an important evolving standard as the economy grows. From 1973 the definition of SMEs in the garments and electronics industries included companies employing up to 300 people, a higher number than for other industries due to the labour-intensive nature of manufacturing in these industries. The standard was reduced to 200 persons in 1995, reflecting Taiwan's entry into a more capital- and technology-intensive stage of manufacturing. The legal definition of SMEs in terms of paid-up capital was changed from NT\$5

million in 1967 to NT\$20 million in 1977, to NT\$40 million in 1982, to NT\$80 million in 2000 as SMEs increased their ability to raise capital.

The textile industry has become one of the most fruitful fields for SMEs in Taiwan. As Table 3 illustrates, in 2005 small and medium firms were 98.81 per cent of all textile enterprises, had 55.68 per cent of exports and 58.53 per cent of total sales. However, the share of SMEs in manufacturing is decreasing under the impact of globalisation and the innovation age. To maintain this unique economic structure, the government is encouraging Taiwan SMEs to become involved in the development of tertiary sectors such as trade, logistics, knowledge management and service industries, especially those serving manufacturing.

In the 21<sup>st</sup> century, with an increasingly fierce economic environment domestically and internationally, the government has

encouraged SMEs to concentrate on five areas so as to retain their vitality:

1. achieving product segmentation with mainland China in terms of quality and price;
2. accessing government resources electronically;
3. enhancing competitiveness through public and private sector resource integration
4. development of local industries;
5. keeping a close eye on developments in e-commerce.

**Textile-Specific Policies and Institutes**

To encourage exports of textiles, the Ministry of Economic Affairs (MOEA) adopted several administrative regulations in the 1960s, such as the ‘Cotton-Weaving Improvement and Cooperation Programme’, ‘Tax Refund Regulation for Export Goods’, ‘Textile Export Quota Distribution Scheme’ and ‘Programme for Speeding Textile Industry Improvement’. Textile experts entered the government to help draft regulations and a long-term plan that were an important backup for textile development.

Besides industry-specific regulations, the government also set up two important institutions to deal with textile issues. One is the Textile Expansion Committee, in charge of quota distribution and marketing tasks (daily administration and short-term functions). The other is an institution for long-term growth and development planning.

The organisation now named the Taiwan Textile Research Institute (TTRI) originally developed from the technical department of the Taiwan Cotton Spinners Association; it was separated from the TCSA and became an independent organisation called the Taiwan Textile Testing Centre in December 1959. In June 1971, it was renamed the China Textile Testing and Research Centre. The emphasis was on quality control, test-

**Table 3: Taiwan's Garment Industry Structure by Firm Size**

		Number	Exports (NT\$ m)	Sales (NT\$ m)
2001	Big enterprises	50	21,862	49,762
	SMEs	4,751	37,043	89,803
	% SMEs	98.96	62.89	64.34
2002	Big enterprises	69	22,626	43,414
	SMEs	4,499	33,412	83,340
	% SMEs	98.49	59.62	65.75
2003	Big enterprises	53	20,835	45,197
	SMEs	4347	32,115	79,757
	% SMEs	98.80	60.65	63.83
2004	Big enterprises	55	21,930	51,025
	SMEs	4,331	29,877	76,726
	% SMEs	98.75	57.67	60.06
2005	Big enterprises	52	19,951	49,743
	SMEs	4,330	25,070	70,217
	% SMEs	98.81	55.68	58.53
Source: Calculated from white paper on SMEs, Ministry of Economic Affairs, 2006.				

ing and certification. From 1980 onwards, more emphasis was put on research and development. The CTTRC was restructured and renamed the China Textile Institute in October 1989. The CTI took the major role in technical R&D projects and technical guidance authorised by the MOEA. The major R&D tasks after 2000 stress the production of technical, functional and comfortable textiles and further concentration on promoting industrial services. The CTI was renamed TTRI in September 2004.

Among the TTRI's various functions, it is worth mentioning the technology services: technical guidance and training, testing and certification services and industrial services. Those services can be provided to less developed countries for a fee. For example, there are five categories of training courses: apparel and home textiles development technology; technical textiles development technology; key manufacturing technology; textile evaluation and testing technology; and textile high technology.

On 15 May 2006, after nine years of plan-

ning, the first subsidiary institute of the TTRI was inaugurated in Yuen-Lin county to serve textile enterprises in southern Taiwan. The whole institute is now aiming to become one of the most important international textile R&D and technical service institutes, especially for Asian countries.

For R&D on raw materials, yarn and product development, the TTRI stresses areas such as far infrared textiles, anti-static textiles, UV-cut textiles, electromagnetic shielding textiles, anti-bacterial and anti-fungal textiles, anti-mite textiles and nano-textiles.

#### **Development of Complementary Industries**

Inter-industrial collaboration in developing Taiwan's textile materials and products has been a significant feature. During the 1960s, the first locally produced sewing machine was made. However, textile machines still had to be imported; at that time the machinery industry tried to produce some textile machine components needed for urgent repairs. In the 1970s, Taiwan started the production of simple tool-making machines. Gradually the whole set of complex tool-making machines and textile machines was developed in 1980s, followed by the move to precision instruments and

machinery in the 1990s. This important complementary machine technology has proved very helpful for the innovation and development of high-tech textile materials and products since the late 1990s. Taiwan's textile technology was developed following the line of market demand: cotton and wool weaving in the 1960s; synthetic fibre technology in the 1970s; filament technology in the 1980s; high-speed filaments and hyper-thin fibres in the 1990s; since 2000 multiple-function materials, nano technology, instant response and function design techniques.

#### **4. Labour Market**

A Labour Standards Law was promulgated in 1984 and the Council of Labour Affairs established in 1987. Taking care of labour

affairs and the labour movement gradually came onto the administrative agenda of the government.

#### **Work Hours and Wages**

Taiwan's comparative advantage in manufacturing is seen to lie in instant response to clients' orders. The famous 'just in time' production needs a highly cooperative labour management system. Earnings of employees normally can be divided into 'regular monthly wage' and 'overtime wages' or 'performance bonus'. In the

manufacturing sector, regular monthly wages normally are about 80 per cent of total monthly earnings. If services and other industries are included, the proportion is about 82 per cent, so the wage system for manufacturing labour is more flexible. Working hours also differ from industry to industry.

The lower the skill level, the lower the earnings is the iron rule of the labour market. In the labour-intensive textile and garment industries, workers work longer hours while earning less. In 2004, the average monthly work for textile workers was 192.9 hours and average earnings NT\$30,943. For the manufacturing sector as a whole, work av-

eraged 183.5 hours and earnings averaged NT\$40,611. If the statistics include workers in the construction and service sectors, the average monthly earnings go up to NT\$43,021. However, the earnings of textile and garment workers are nevertheless nearly double the minimum wage (NT\$15,840 since 1997).

### **Labour Unions**

---

There are now 4,093 labour unions in Taiwan, of which 1,109 (27 per cent) are industrial (with 593,907 members) and 3,024 are occupational (with 2,370,704 members). Assuming that each worker is a member of only one union at a time, then the union participation rate of all employed workers (9,942,000 persons at the end of 2004) is nearly 30 per cent. Among the industrial unions, manufacturing unions number 795 (71.7 per cent). Among occupational unions, technicians and related workers have 994 unions (32.9 per cent), service and sales persons 596 (19.7 per cent) and unskilled workers and labourers 362 (12.0 per cent).

Reported cases of disputes involving un-

ions have been decreasing in recent years: 14,017 cases in 2002, 12,204 in 2003, 10,838 in 2004. Of 11 categories of disputes, wages disputes (48.8 per cent), contract disputes (44.8 per cent) and disputes related to accidents at work (8.5 per cent) were the top three causes (some disputes had more than one cause). According to officials who deal with labour disputes, workers in the textile and garment industries are less active in unions than other workers. The peak period of union activity was from 1987 to 1989, when many factories closed down and moved to China or other countries. The Council of Labour Affairs reported 224 labour disputes in the textile and garment industries in 1989, the same number in 1990 and 138 in 1991.

## **5. Conclusion and Implications**

---

The critical factor that influenced the growth and expansion of the textile and garment industries through the six stages outlined above was the goal of expanding product scope and the related professional training and education system in the 1960s and 1970s. As a country lacking natural resources, Taiwan imported cotton and used US aid cotton as the first stepping stone. Following the first artificial fibre in 1964, there were five well-known technology senior high schools or college departments of textile research. Technology and innovation based on the education system laid the foundations of Taiwan's high tech industries in 1980s.

During the process of economic development, in addition to SME entrepreneurship, government officials' professional and administrative abilities in regulating and managing economic and trade affairs was also crucial. This paper points out the importance of ensuring an investment-friendly environment: (1) tax and financial reforms for better macroeconomic environment, (2) bank loans, land and labour markets for SME to foster their ability in trade, investment and labour management, (3) industry-specific policies and institutes, (4) development of complementary industries in different stages. The lesson from the development of the textile and garment indus-

tries is that those policies are equally applicable to local and foreign companies. Taiwan fostered many successful SMEs, which led to the later big investment in China and other developing countries.

Many LDC governments think that special economic zones to attract FDI will automatically lead to sustainable industrial and economic development. Drawing from Taiwan's experience, this is overoptimistic. Many other important issues, such as school education, work ethics, professional education, quality control and financial markets friendly to SME, have not been included in this paper.

Cambodia and those newly rising LDCs dispose of no more natural resources than Taiwan. Taiwan's experiences in developing the textile and garment industries are worthy of imitation by those countries.

After two decades of a changing global division of labour in manufacturing, textile and garment markets have changed dramatically.

The textile manufacturing supply chain is globalising. Regional synergies determine the development partners and path of a country. For a long time, Cambodia has maintained cordial relations with the People's Republic of China. China's FTA policy rides on its 'new diplomacy'. The development of textile and garment industries requires a great amount of natural and artificial fibres. Since China signed the Early Harvest Package on agricultural products with Cambodia, Laos, Myanmar and Vietnam in 2004, a many-sided cooperative international programme, taking account of the global manufacturing supply chain, can be designed. A regional manufacturing supply chain Cambodia, Laos, Myanmar and Vietnam can involve natural materials (cotton, wool) from China, manufacturing technology and equipment from Taiwan and training in technology, fashion design and marketing from Britain, France or Germany.

The precious experiences of the TTRI in training the trainers for textile technology and education can be the seedbed for peaceful economic cooperation in east Asia.

## References

- Akamatsu, K. 1962. 'A Historical Pattern of Economic Growth in Developing Countries', *Developing Economics*, 1.
- Chang, Mao-Hsio. 1982. 'The Development of Taiwan's Textile Industry', *Bank of Taiwan Quarterly*, 33:4, pp.30-46.
- Chieh, Ming-Juan. 2002. [The Development of Taiwan's Machinery Industry] (in Chinese), National Policy Report, NPR Foundation.
- Chiu Chen, Lee-in. 1992. 'The Economic reunion of Taiwan and Mainland China—The Impact on Industrial Development'. CIER Discussion Paper 9203.
- Chiu Chen, Lee-in. 2004. 'Economic and Political Interaction across the Taiwan Strait Facing the Trend of Economic Integration in East Asia'. KIEP CNAEC Research Series 04-05.
- Chiu, Hsien-Tong. 2003. [Strategic Planning Report for Textile Field] (in Chinese).
- Chow, Chia-Ming. 1981. 'The Prospect and Current Situation of Taiwan's Chemistry Fiber Industry', *Bank of Taiwan Quarterly*, 32:2, pp.1-18.
- Chow, Shien-Wen. 1980. [Taiwan Economic History] (in Chinese). Taipei: Kai-Ming Book Publisher, pp. 530-569.
- Dowling, M. and C.T. Cheng. 2000. 'Shifting Comparative Advantage in Asia: New Tests of the "Flying Geese" Model', *Journal of Asian Economics*, 11, pp. 443-463.

- Fei, J.C.H., Gustav Ranis and Swy Kuo. 1978. 'The Growth and the Family Distribution of Income by Factor Components', *Quarterly Journal of Economics*, 50.
- Fei, J.C.H., G. Ranis and Swy Kuo. 1979. *Growth with Equity: The Taiwan Case*. World Bank, Oxford University Press.
- Galenson, Walter (ed.). 1979. *Economic Growth and Structural Change in Taiwan*. Ithaca: Cornell University Press.
- Kuo, Shirley, G. Ranis and J. Fei 1981. *The Taiwan Success Story*. Boulder, Colorado: Westview Press.
- Kuznets, Simon. 1979. "Growth and Structural Shifts", in Walter Galenson (ed.), *Economic Growth and Structural Change in Taiwan: The Postwar Experience of the Republic of China*. Ithaca, NY and London: Cornell.
- Lee, P., C.T. Lu and H.H. Lee. 1952. [Special Issue of Taiwan's Textile Industry], *Commercial Times*, Taipei, pp. 1-3.
- Lin, Chung-Zhen. 1994. 'The Study on Textile Development Policy in Taiwan', National Science Council (830301H001036).
- Lin, Bun-Hsung. 1970, 'A Study on the Development of Cotton Textile Industry in Taiwan', *Bank of Taiwan Quarterly*, 21:1, pp. 111-137.
- Lin, Chung-Hwa. 1978. 'A Study of Cotton Textile Industry in Free China' (in Chinese), *Tai-Chung*, pp. 5-20.
- Meier, Gerald M. and James E. Rauch. 2000. *Leading Issues in Economic Development*, 7<sup>th</sup> edition. Oxford University Press.
- Porter, M. E. 1986. *Competition in Global Industries*. Boston: Harvard Business School Press.
- Ranis, Gustav (ed.). 1992. *Taiwan: From Developing to Mature Economy*. Boulder, Colorado: Westview Press.
- SMEA. 2002. [White Paper on Small and Medium Enterprises in Taiwan], Small and Medium Enterprise Administration and Chung-hua Institute for Economic Research.
- SMEA. 2005. [White Paper on Small and Medium Enterprises in Taiwan], Small and Medium Enterprise Administration & Chung-hua Institute for Economic Research.
- Suzuki, K., *Changing Flying Geese: Measuring Structural Change in East Asia with Asian International Input-Output Table*. Stockholm School of Economics Working Paper 172 (2003).
- TTRI. 2005. 'New Ideas in Technology, New Future of Textiles'.
- Wong, J.R. 1978. 'How we created economic miracle', *Reading Times*, Taipei, p. 25.
- Ying, Tsung-Jung. 1961. 'A Decade of US Aid and Taiwan's Economic Development', *Bank of Taiwan Quarterly*, 12:1, p. 71.

# A Survey of China's Apparel Industry

Yin Xingmin\*

## *I. Introduction*

---

The economic development of China is put forward as an example of the success of an export-oriented strategy. In this strategy, industrial development is conceptualised as an outcome of perfect competition and the free development of market forces. Until the end of the 1970s, China's industrial and foreign trade policies were regarded as those of the closed planning economies; foreign trade was understood as a tool to enhance import substitution and achieve industrial self-sufficiency and economic independence in the long run.

During the past 15 years, China's economy has been increasingly integrated with the world economy. Imports and exports have risen significantly as a percentage of gross domestic product. It is well known that China's exports increased dramatically, from 5 per cent of GDP in 1980 to 35 per cent in 2005. The export volume of manufactured products reached US\$762 billion in 2005, in comparison to US\$18.12 billion in 1980.<sup>1</sup> Many manufacturing sectors have grown in response to strong international demand for China exports. Macroeconomic policy has generally favoured exportable goods, which tend to be intensive in unskilled and semi-skilled labour. One of the notable features of rising exports of manufactured products is that the garment industry contributed a great part of the export growth and the job creation in China during 1990-2004, particularly in 2000-2004.

Export-oriented industrialisation theory has had a significant impact on economic policy in China since the end of the 1970s. China was the world's third leading exporter in 2005, with a world export share of 8 per cent. Based on international observations, a few studies have investigated the effects of garment exports on China's industrial development and economic activity. However, this study is concerned with the questions: What have been the characteristics and course of development of the apparel industry since 1999? How have China's garment exports evolved, as the foreign trade generated by the apparel sector has accounted for 11-16 per cent of China's exports since the mid-1990s? What has changed for the regional clusters of apparel production? This study will illustrate the evolution of trade and employment in the apparel industry and provide a brief survey and assessment of the industry.

The paper is divided into six sections. Section II provides general information on the apparel industry in China. Section III examines the trends of garment exports and the role played by foreign firms. Section IV describes the employment, labour costs and economic performance of this sector. Section V highlights several special trends, particularly the regional clusters and industrial concentration. The last section is concluding remarks.

\* Professor, China Centre for Economic Studies, Fudan University, Shanghai 200433, China. Email: yin1953@fudan.edu.cn

1. *China Statistical Yearbook*, 2005, p. 633.



## II. Overview of China's Apparel Industry

It is claimed that the dynamic effects of export growth are reflected in variations in productivity and changes in resource allocation, technology, efficiency and comparative cost advantages, all of which are significant elements of a successful development strategy.<sup>2</sup>

Economic theory argues that the production and trade of labour-intensive products promote national industrialisation. This also explains the growth of a populous country with huge reservoirs of surplus labour. Based on China's experience, it is also argued that exports generate greater capacity utilisation in industries, greater horizontal specialisation, increasing familiarity with technology and greater learning-by-doing effects, and that they result in internationally competitive prices and higher quality products. The apparel industry has been one of the most successful sectors in shifting from domestic orientation to exports since 1980. China substantially increased its share of apparel exports in the world mar-

ket, from 20.7 per cent in 1997 to 26.6 per cent in 2004, which is regarded as a major advance in the globalisation of garment production.

The growth of the apparel industry revealed by exports is also observed in increased employment and output. However, the apparel industry supplies only a tiny share of employment in China. Nationally, it accounted for only 0.56 per cent of non-farm employment in 2000, and 0.78 per cent in 2004.

Table 1 summarises the general trends of China's apparel industry during 1985-2004. It is important to stress several points.

First, the output of the apparel industry has increased quickly since 1995, from 147.02 billion yuan in 1995 to 229.12 billion yuan in 2000, and to 387.98 billion yuan in 2004. However, its share of total manufacturing output decreased to 2.38 per cent in 2004 from 3.08 per cent in 2001.

**Table 1. Indicators of the Apparel Industry in China**

Year	Assets		Employment		Output	
	RMB billion	%	'000 persons	%	RMB billion	%
1985	8.04	1.16	1,150	2.73	19.93	2.42
1990	19.53	1.16	1,150	3.02	41.46	2.49
1995	126.05	1.59	1,750	3.22	147.02	3.02
2000	175.88	1.59	2,156	3.88	229.12	3.05
2001	190.58	1.87	2,371	5.23	259.63	3.08
2002	207.86	1.89	2,658	5.76	291.49	2.96
2003	237.73	1.86	2,892	5.92	342.60	2.69
2004	277.05	1.70	3,203	6.14	387.98	2.38

Notes: Assets in 1985 and 1990 include the net value of fixed assets and circulating capitals. Share is relative to manufacturing industry.  
Sources: *China Statistical Yearbook*, various issues. *China Industry Economy Statistical Yearbook*, various issues.

2. World Bank, 1991.

Second, total assets include circulating capital, long-term investment, fixed assets, intangible assets, deferred assets and other assets. Apparel industry assets increased by 58 per cent from 2000 to 2004, while manufacturing industry increased its total assets by 71 per cent, from RMB9,554.8 billion to RMB16,324.03 billion, in the same period.<sup>3</sup>

Third, the apparel industry created more than 1 million new jobs in China from 2000 to 2004. Compared to the late 1990s, employment in the early of 21<sup>st</sup> century grew at a very fast pace.

It is most important to understand the structural changes in China's manufacturing in-

dustry in the early 21<sup>st</sup> century. The most important issue affecting the sector since 1995 is related to the dynamic growth of electronics and other capital-intensive sectors. For instance, the electronics and communication industry has significantly increased its share of output from 1.85 per cent in 1980 to 5.22 per cent in 1995 and 13.15 per cent in 2004, becoming the largest manufacturing sector in terms of output as well as assets.

To trace the effects of globalisation in labour demand on employment and output growth, we turn to identify the factors such as exports and foreign direct investment; and also trace its dynamic efforts in the face of strong global demands on Chinese garments.

### **III. Patterns of Export-Oriented Growth**

It is clear that the world garment market has become more open, subject to strong price and quality competition. China has increased its share of world garment exports become the major exporter of textiles. The growth rate, however, becomes less impressive, when it is recognised that the strong growth of China was closely related to a decline in the exports of Hong Kong. According to the estimates of the

International Labour Organisation, China including Hong Kong accounted for 36.4 per cent of world clothing exports in 1997 and 38.0 per cent in 2004.<sup>4</sup>

More importantly, the combined ratio of textiles and textile goods to China's GDP is relatively low. It reached 4.24 per cent in 1999 and increased to 5.4 per cent in 2004.

#### **A. Trends of Garment Export Growth**

It is necessary to give some explanations on the classification of the apparel sector. Data on exports of apparel products in 1999-2004 is based on the calculation of four categories of textiles and textile articles: knitwear and crocheted fabrics; knitted or crocheted garments and clothing accessories; garments not knitted or crocheted; and other textile products and second-hand garments. An analysis of the composition of textiles and textile products ex-

ports shows that the more labour-intensive garment industry has increased faster than textiles over the last decade and represented 74 per cent of China's total textile and textile product exports in 2004, compared to 66 per cent in 1999.

Trade liberalisation has been particularly successful in integrating China into the world economy. Economic theory stated that the opening of the economy to inter-

3. *China Statistical Yearbook*, 2001, p. 411; and 2005, p. 491.

4. Ernst *et al.*, p. 3.

national trade would provide an outlet for surplus productive capacity and promote economic growth. China's apparel sector had already begun its integration into the global market before 1990. For instance, garment product exports increased to US\$2.05 billion and a garment trade surplus of US\$0.44 billion in 1985. Arguably,

China is a good example of how export expansion can be promoted under the new conditions, including China's entry into the World Trade Organisation. Table 2 shows that the trade surplus for garment exports reached US\$34.52 billion in 2000, and significantly increased to US\$62.23 billion in 2004.

**Table 2. Exports of Garment Products**

Year	Exports (US\$ million)	Growth (%)	% of Total Exports	Trade Surplus
1985	2,050		7.5	440
1990	6,847	11.71	11.0	
1991	8,998	31.42	12.5	
1999	27,185	-12.86	16.00	24,911
2000	37,029	36.21	14.86	34,521
2001	37,469	1.19	14.08	34,886
2002	42,968	14.68	13.20	40,204
2003	54,434	26.68	12.42	51,387
2004	65,562	20.44	11.05	62,227

Source: China Statistical Yearbook, various issues.

The growth of apparel exports between 1990 and 2004 was driven by a surge in exports to the US market in the mid-1990s, and thereafter by a surge in exports to all world markets thanks to the advantage provided by China's entry into the WTO. The apparel industry was one of the fastest growing manufacturing industries in the 1980s. What has been the net effect of these growing exports on its importance in total exports? The apparel industry did not account for a high share of total exports, the share of 16 per cent in 1999 decreasing to 11.05 per cent in 2004. It is commonly expected that the garment share of manufacturing exports will decrease bit by bit due to the structural changes of industry based on the quick shift of China's comparative advan-

tages to intermediate technology in the coming decade.

China's apparel industry is typical of an export-oriented growth pattern. Table 3 shows the ratio of exports to sales of the apparel industry. The regional data for Shanghai and Jiangsu are presented as a complement to the general trends for the apparel industry.

First, the ratio of exports to sales had not changed much in recent years, although both increased significantly in this period. Second, Jiangsu's industry has been one of the country's major industrial bases, including its apparel sector with about 19 per cent of total national apparel production in the

past five years. The ratio of exports to sales remained around 50 per cent from 1999 to 2004. Third, it is well known that Shanghai was the largest base of China's apparel industry before the early 1980s. For example, Shanghai produced 25 per cent share of national garment output in 1980. From 1990, however, the Shanghai metropolitan government adopted a major strategy of restructuring manufacture and shut down textile and textile goods production to set up new capital-intensive industries. As a result, the Shanghai apparel industry decreased its national share quickly, from 10.13 per cent in 1991 to 7.99 per cent in 2004. In the same period, Shanghai's ratio of exports to sales also decreased, from 60.12 per cent to 50.36 per cent.

It is important to note that although the share of garment products in exports is decreasing, both output and exports of apparel are still rising. Export growth for all manufacturing is impressive. The leader here, as in other areas, is the electronics and communications sector. The electronics industry alone accounted for almost 40 per cent of total exports in 2004, up from 15 per cent in 1995, while apparel products decreased its share of exports from 16.10 per cent in 1999 to 11.05 per cent in 2004. It is predictable that the role of

Year	Exports (bn yuan)	Sales (bn yuan)	Ex/Sales (%)
<b>National</b>			
2001	135.54	251.55	53.88
2002	154.41	283.37	54.49
2003	181.84	333.02	54.60
<b>Jiangsu</b>			
1999	18.05	35.76	50.48
2001	24.70	49.83	49.57
2002	25.95	55.27	46.95
2003	28.87	60.18	47.97
2004	35.57	70.53	50.43
<b>Shanghai</b>			
1995	8.77	14.56	60.23
1999	11.44	19.03	60.12
2000	13.11	23.68	55.36
2001	13.73	25.00	54.92
2002	14.41	27.74	51.95
2003	16.25	29.91	54.33
2004	15.38	30.54	50.36

Sources: *Jiangsu Statistical Yearbook*, *Shanghai Statistical Yearbook*, various issues

the apparel industry in manufacturing exports will continue to decrease.

## **B. Role of Foreign Direct Investment**

As expected, export success tends to be correlated with a liberal policy towards foreign investors. This arises from the fact that many exportable goods that are made cheaply in small local firms require large global marketing firms to reach foreign buyers. The apparel industry has strong marketing economies of scale although production may have small economies. Thus a policy of encouraging foreign direct investment (FDI) was announced in the early 1980s. Barriers to FDI have been consistently eliminated. Among the reforms, joint

ventures are an important innovation that allowed foreign capital to exploit excess labour to produce exportable goods. Since 1979, China has been one of the most successful nations in attracting FDI, accumulating to US\$620 billion between 1979 and 2005. In general, the most relevant trend over the 1979-2005 was the increased share of FDI in manufacturing. Two important periods can be highlighted for these investments: 1979-1991 and the period from 1992 to now. In the first period, FDI in China accumulated to US\$23.35 billion.

Realised FDI accumulated to nearly US\$600 billion for 1992-2005.

China's development experience in the apparel industry is relevant from several viewpoints. Generally, FDI reflects the commercial interests of overseas firms in search of market access and competitiveness for their

global production networks. From calculations based on the statistical yearbooks, the exports of foreign-invested enterprises (FIEs) reached US\$338.61 billion and accounted for 57 per cent of total exports in 2004.<sup>5</sup> What have been the most significant tendencies in terms of FDI in China's apparel industry?

**Table 4. Foreign-Funded Firms in Apparel Industry**

Year	Assets (bn yuan)	%	Jobs ('000)	%	Output (bn yuan)	%
2000	79.96				111.21	48.5
2001	83.70	43.92	1113	46.9	119.45	46.0
2002	92.55	44.53			132.18	45.3
2003	106.52	44.81	1448	50.1	158.95	46.4
2004	126.33	45.60	1617	50.5	185.27	47.8

Note: Percentage as share of apparel industry.  
Sources: China Statistical Yearbook, 2001-2005 issues.

Table 4 illustrates the market share of foreign-invested firms in the garment industry in the past five years. With the gradual opening up of the economy, many of the FIEs are export oriented. They became major entities in the apparel industry in the past decade. Usually, foreign-invested firms recruited unskilled cheap labour from the rural sector and skilled workers from the urban sector. They have had a direct impact on exports and provided a high degree of export-orientation for the apparel sector. Thus, three points can be drawn from our analysis.

First, one way to compare the export performance of FIEs in China's apparel industry is to analyse their shares of total output and employment. These indicators describe the real role of FDI in the growth of this industry. The proportion of FIEs in total sales was 48 per cent in 2000, while the share of exports reached 50 per cent in 2004. Second, FDI played an increas-

ing role from a development perspective. FDI increased its weight from 46.9 per cent of garment industry employment in 2001 to 50.5 per cent in 2004, although it accounted for only 45-48 per cent of total output, while its share of the capital was stable at 45 per cent during 2000-2004. The fact that FIEs hold a lower proportion of assets than of employment in the apparel industry indicates that FDI in this industry is involved in labour-intensive production. Third, the number of employees in FIEs was 1.62 million, 50 per cent of the apparel labour force in 2004. Thus, over 2001-2004 FIEs, created half a million new jobs and also accounted for 61 per cent of job creation for China's apparel industry, providing more jobs for unskilled labour.

The foregoing analysis suggests that exports may contribute to employment growth. Exports enabled FIEs to grow rapidly with China's surplus labour and led to growth of

5. *China Statistical Yearbook*, 2005, p. 642.

employment in the apparel sector. FDI is relatively labour intensive in comparison with the total apparel industry. However, recent trends in the apparel sector are also relevant since they show that Chinese firms require joint ventures or different forms of association with foreign firms to compete even in the Chinese market. Not only huge investments but also foreign firms' experience, quality control and technological development are some of the reasons for this. The evidence in Table 3 seems to clear that the production of FIEs is more labour intensive than that of the domestic sector, and therefore a unit increase in exports requires relatively high quantities of labour compared to domestic production.

Thanks to China's low labour costs and trained productive labour force, this industry attracts investors mainly from Asia. FDI in the apparel sector is mainly related to low labour costs, low trade barriers and other preferential policies from both cen-

tral and local governments. FDI flows can be characterised as a search for efficiency—through exports and distribution of global activities—as well as for access to the domestic market.

As expected, output growth of leads to increased labour demand. The expansion of export markets has been only one impulse driving the growth of China's apparel industry, and domestic demand also provided a strong incentive for the establishment of firms and the expansion of productive capacity. So China's domestic firms, mainly private, also increased their presence in apparel production as well as exports. Domestic apparel firms accounted for 62.68 per cent of investments in urban areas in 2004, while investments from Hong Kong, Macao and Taiwan were 19.18 per cent, and 18.14 per cent from foreign firms. Therefore, it may be foreseen that the major players in China's apparel industry will be domestic firms very soon.

### **C. Market Diversification**

A high level of market diversification means that a country exports to a large number of countries; a low level means that exports are concentrated in just a few countries, particular in neighbouring countries—such as Mexico exporting more than 85 per cent of its garments to the United States. A country with a high product diversification exports a wide range of goods. Clearly, a high degree of market diversification contributes to a high level of stability in exports.

Export destinations give us more insight into the market for China's garment exports. The total of textiles and textile articles exported reached US\$57.85 billion in 2002, US\$73.35 billion in 2003 and US\$88.77 billion in 2004.<sup>6</sup> It is calculated

that garment exports accounted for 73-75 per cent of total textiles and textile articles in 2002-2004.

From Table 5, China's export gain is enormous, through increasing its garment exports to the European Union from US\$3.24 billion in 2000 to US\$8.49 billion; to the United States from US\$4.79 billion to US\$8.26 billion in the same period. China has an excellent market diversification in garment exports. Japan has been the largest buyer of China's garment exports in the last decade. The United States and the EU have had strong quota systems for garment exports from developing economies. The US market for China has slightly decreased, from 13.31 per cent of total garment exports in 2000

6. *China External Economic Statistical Yearbook*, 2004, pp. 32-78, and 2005, pp. 46-81.

**Table 5. China's Garment Export Destinations: Selected Years**  
(US\$ billion)

Region	1996	2000	2001	2002	2003	2004
Hong Kong	6.60	6.60	5.82	8.31	9.78	11.29
Japan	8.11	11.49	11.84	11.98	13.44	15.09
South Korea	0.65	1.15	1.59			
EU	2.18	3.24	3.35	4.24	5.95	8.49
Russia	0.88	1.07	1.18			
ASEAN	0.21	0.58	0.62			
USA	3.20	4.79	4.92	4.82	6.51	8.26
Subtotal	21.82	28.92	29.35	29.34	35.68	43.12
Percentage of total	87.36	80.28	80.21	68.29	65.54	65.77

Notes: The EU data cover only eight countries in 1996-2001: Belgium, Denmark, UK, Germany, France, Italy, Netherlands and Spain.  
ASEAN refers to five countries: Indonesia, Philippines, Singapore, Malaysia and Thailand.  
Sources: *Almanac of China's Foreign Economic Relations and Trade*, 1988-2002, *China External Economic Statistical Yearbook*, 2003-2005.

to 12.59 per cent in 2004, while the EU market for China has increased from 10.38 per cent to 12.75 per cent in the same period.

On the one hand, export opportunities for China's apparel products have mainly come from three major developed economies:

Japan, the United States and the European Union, which together accounted for 48.57 per cent of China's garment exports in 2004. However, because China is a large-scale exporter, it can serve many different countries. In addition, quotas imposed by the US and the EU have also forced China to diversify its export markets.

#### **IV. Employment Creation and Related Performance**

The production and export of textile products grew rapidly from the late 1990s, as previously described. While this growth testifies to the success of the globalisation policy of encouraging exports of labour-intensive products, it also exposed a number of structural weaknesses of this

industry. Demand growth triggered a large job creation, and we now focus on this part of the adjustment process by examining the complicated relations of employment, wages, labour productivity and capital intensity in the China's apparel industry.

##### **A. What is the Comparative Advantage of China's Apparel Industry?**

China has a large, diversified and versatile base in apparel goods. Labour costs are certainly an important, but not a unique or decisive, factor in international competitiveness. China has low, but not the low-

est, labour costs worldwide. The labour force is fairly young and fairly educated, the average worker having about nine years of formal education. This estimate is based on the nine-year compulsory education sys-

tem announced in 1993. Therefore, young workers should have at least nine years of normal schooling.

As economists from International Labour Organization point out, low production and distribution costs, full-package production systems, a certain level of product and market diversification, a favourable macroeconomic environment such as a low real exchange rate, a favourable investment environment, public support for

the manufacturing sector and preferential access to dynamic markets provide a winning combination that encourage firms to invest.<sup>7</sup> China combined many of these factors to increase its competitiveness in the global garment market, which created more jobs for unskilled labour. In comparison to other developing economies, China was well placed to take advantage of low labour costs and other factors related to institutional reforms and industry policy.

**B. Employment Growth**

An acceleration in the employment growth rate seems to be a general feature of China's manufacturing if 1999 is used as the starting point rather than 1995. The growth in employment in the early 21<sup>st</sup> century seems to have been driven by exports, considering the ratio of more than 50 per cent of exports to sales in the apparel industry.

The number of workers in the apparel industry was 3.2 million in 2004. However, if we consider the total manufacturing labour force, the number of workers in the apparel industry is larger than suggested in Table 1. Estimates of employment in manufacturing vary with the definition and data sources. The data of the *China Statistical Yearbook* neglects employment in smaller enterprises, so both values and employment are underestimated. Table 6 shows the difference between data on all state-owned and non-state-owned indus-

trial enterprises above the designated size (We may call this definition 1) and total employment in all manufacturing industry (definition 2). It seems that 36.9 million persons were not counted in manufacturing industry in 2002.

For employment growth, there is also a problem of a lack of reliable data on the national level. Therefore, we estimate employment with a data set of labour in regional areas. In order to show the real picture of employment for the apparel industry, we choose employment data from Guangdong, Jiangsu and Shanghai to complement the explanation of national employment change. These three regions plus Zhejiang province accounted for more than 70 per cent of China's garment output as well as garment exports. This is the best we can do due to the lack of data.

Examination of employment growth from Table 7 and related information illustrate some of the salient features. First, increased exports generated a surge in employment, which went from 2.03 million in 1999 to 3.20 million in 2004, as illustrated in Table 1. The share of the apparel industry in total manufacturing employment rose to 6.14 per cent in 2004 from 3.88 per cent in 2000.

Year	Def. 2	Def. 1	2 -1
2001	80.83	45.30	35.53
2002	83.07	46.17	36.90

Source: *China Industry Economy Yearbook*, 2002-2003.

7. Ernst *et al.*, p.8.



Table 7. Apparel Industry Employment in Three Coastal Regions

Year	Nation- al	Guang- dong	Jiangsu	Shang- hai
1999	2,027	n.a	280	179
2000	2,156	n.a	n.a	201
2001	2,371	n.a	359	214
2002	2,657	654	405	228
2003	2,892	709	422	235
2004	3,203	736	482	222

Units: thousand persons.  
Sources: *China Statistical Yearbook*, various issues; *Jiangsu Statistical Yearbook*, various issues; *Guangdong Statistical Yearbook*, various issues.

Second, using regional data sources for a period of five years allows us to get a feeling about the evolution of employment in the apparel industry. Guangdong increased its jobs by 82,000 in 2002-2004, Jiangsu by 123,000 in 2001-2004, and Shanghai by 56,000 in 1999-2003. In contrast with three coastal regions, however, Shanghai has experienced a fall in employment in the apparel industry since 2003. This is not just the result of increased productivity, but is also due to a decline of production and a deliberate pulling out of this industry. Third, all these trends indicate that the apparel

industry as a whole created more employment for unskilled labour. However, it seems that increases in apparel exports have not provide a considerable demand for labour in the past two years; that is to say, the pace of job creation in this sector has slowed. For instance, the Guangdong apparel industry created only 27,000 jobs between 2003 and 2004.

The evolution of employment and employment share in the apparel sector provides an interesting picture of China's recent industrialisation. First, the apparel sector is relatively less important for China's manufacturing industry in terms of employment and exports. Second, the electronic and communications industry increased its employment from 1.96 million in 2000 to 3.33 million in 2004, creating 1.37 million workers new jobs, and electrical machinery increased its employment from 2.29 million to 2.99 million, creating 690,000 new jobs in the same period. Third, the increase of jobs in the apparel industry is equal to approximately a 12 per cent increase of the 6.90 million workers in all manufacturing industry during 2001-2004.

### C. Efficiency Assessment

It is necessary to present explanations of special definitions in the Chinese context. **a.** Overall labour productivity of industrial enterprises refers to the average output in value terms per employed person in industrial enterprises. At present, the value added and the average number of staff and workers of industrial enterprises in a given period are used to calculate the overall labour productivity. **b.** Total profits refer to the profits gained by the enterprises. Most of our focus below will be on what is happening to an apparel industry that faces low productivity. The data in Table 8 suggest that export orientation does not induce increased efficiency in the use of labour

when surplus labour is drawn from the rural sector to the export sector. The performance of the apparel industry seems to be worse than the overall performance of the manufacturing sector.

First, it is important to stress that labour productivity has increased significantly for manufacturing as a whole. Overall labour productivity for the manufacturing sector rose from US\$5,518 in 2000 to US\$8,825 in 2003, an increase of 60 per cent, while labour productivity in the apparel industry increased only 15 per cent. The ratio of apparel to manufacturing productivity decreased continuously.

**Table 8. Productivity in Apparel Industry**

Year	Apparel (US\$ output per person)	Average in Manufacture	Apparel/ Manufacture (%)	Profit Share of Manuf. (%)	Tax Share of Manufacture (%)
1995	2,376	2,798	85		
2000	3,316	5,518	60	3.16	2.07
2001	3,509	6,290	56	3.21	2.20
2002	3,392	7,221	47	2.68	2.10
2003	3,829	8,825	43	2.15	2.04
2004	n.a.	n.a.	n.a.	1.84	1.84

Source: *China Statistical Yearbook*, various issues.

There is not a tendency to high growth of labour productivity in the apparel sector, and the export-oriented apparel industry represented one of the slowest growing of China's manufacturing industries. Increased export-orientation in the case of apparel creates increased employment opportunities because exports of garment products are labour intensive. This can also be understood in terms of one of the objectives of trade and domestic market-based reform policies: to allow comparative advantage to work.

Second, the profit share of apparel in manufacturing declined from 3.16 per cent in 2000 to 1.84 per cent in 2004. Simultaneously, value-added tax payable by the apparel industry decline from a 2.07 per cent to 1.84 per cent share.

China's performance in garments trade has been excellent, especially in terms of growth rates. However, in terms of labour productivity, the indicators in Table 8 seem to be poor because of the surplus of labour from the rural sector.

#### D. Wage Movements

Mostly, there is a clear relationship between low labour productivity and low wages in a competitive market. We examine the effects of wages on job creation in manufacturing industry, with special reference to the garment sector.

It is claimed that economic prosperity creates employment, rising real wages and increasing participation rates of the labour force. However, it is also recognised that intense price competition in manufacturing, particular in labour-intensive products, could force companies to strive for cost reduction, there by putting downward pressure on wages. What has been the impact of the export-oriented strategy on China's wages? Although there is still a shortage of information on wages in the apparel sector

at both national and local levels, real wages grew quite rapidly along with labour productivity in the period 1999-2004. Clearly, structural industrial changes profoundly affected labour costs. Wages in the total economy as a percentage of GDP rose slightly, from 11.91 per cent in 2000 to 12.34 per cent in 2004.

Wages are one of the most important sources of income. One of the most relevant effects of economic growth has been its positive impact on real wages. Average wages and manufacturing wages have increased continuously.

Table 9 displays the difference between wages in manufacturing and the economy on average. The last column describes the

**Table 9. Average Annual Wages (US\$ per year)**

Year	Manu- facture	Econo- my	Man./ Econ. (%)
1990	433	447	96.9
1995	619	659	93.9
1996	679	747	90.9
1997	716	781	91.7
1998	853	903	94.5
1999	942	1008	93.5
2000	1057	1132	93.4
2001	1181	1313	90.0
2002	1329	1501	88.5
2003		1696	
2004		1936	

Source: *China Statistical Yearbook*, 2005, pp.151-156, 626.

ratio of manufacturing wage to average wages in the economy generally.

Average wages have increased at a different pace for manufacturing and the overall economy. While average wages for the whole economy almost doubled between 1997 and 2002, the wage of manufacturing workers only rose 85.6 per cent. Generally, the average wage rose substantially in the past decade, from US\$659 in 1995 to US\$1,936 in 2004. The ratio of manufacturing wages to the national average gradually decreased, from 94.5 per cent in 1998 to 88.5 per cent in 2002. To a large

extent, the situation worsened between the start of the 1990s and the beginning of the new millennium, as highlighted in Table 9. This may be attributed, in part, to fiercer global competition and resulting downward pressure on manufacturing wages.

For the apparel sector we have no reliable data for wages, so we can not calculate trends. However, in estimating wages for apparel workers, we assume that labour productivity can substitute as an indicator that can approximate to be level of wages.

It would be expected that workers in the apparel industry would earn a lower wage than manufacturing workers, because this industry produces low-value goods and employs a mainly unskilled workforce. Thus, combining the data on labour productivity and wages for manufacturing, one can think of a number of results. In contrast to the earlier results on employment, fairly clear differences in the dynamic of wages occur across industries. The level of manufacturing wages is also smaller than that of the national average.

The inference that a slowdown in wages growth in manufacturing encouraged an acceleration of employment growth needs to be tested. In rest of this section, we turn to discuss changes in capital intensity in this industry.

### E. Changes of Capital Intensity

This issue is also macro-economically relevant because it shows that the apparel industry requires more investment that creates technology. For the sake of simplicity and because of data constraints, the apparel industry is analysed in comparison to all industry instead of in comparison to the manufacturing sector, but the two indicators are likely to be similar. In general, manufacturing accounts for about 75-78 per cent of industrial capital in China.

Rates of investment in the apparel industry show a very striking pattern in the past 15 years. The net fixed assets to output ratio declined slightly throughout this period, from 20.86 per cent in 1992 to 17.78 per cent in 2004.

The number of industrial workers increased from 41.02 million in 2000 to 60.98 million in 2004. Total capital in industry increased from 12621.12 billion yuan to 19526.17 billion yuan in the same period.

Table 10. Capital Intensity in Apparel Industry

Year	Apparel			Industry Yuan/ Person	Apparel/ Industry (%)
	Assets (billion yuan)	Yuan/ Person	Growth Rate		
1990	19.53	11,836		108,211	10.94
2000	175.88	81,566		307,682	26.51
2001	190.58	82,584	1.25	352,796	32.41
2002	207.86	78,216	-5.59	392,110	19.95
2003	237.73	82,206	5.10	293,652	27.99
2004	277.05	86,508	5.23	320,200	27.02

Sources: *China Statistical Yearbook*, 2001-2005.

In other words, the rate of capital formation in China's apparel industry was not proportional to the growth of employment. The supply of capital can explain the severity of the fall in the investment rate in the early 21<sup>st</sup> century. Profitability declined, but not dramatically. As shown in Table 8, the profit share of the apparel industry in manufacturing decreased from 3.16 per cent in 2000 to 1.84 per cent in 2004. The equity market has been guided towards capi-

tal-intensive industries since 1999.

These results are not surprising considering that the apparel industry is quite labour intensive in comparison to overall industry and the fact that capital intensity must be increased in the face of rising labour costs, particular in some well-industrialised regions such as Shanghai, which has already shifted some of its garment production capacity to other parts of China.

## V. Industrial Clusters and Concentration

The four regions mentioned above are the major engines of China's economic growth in the past 15 years. Guangdong has the largest regional economy with 11.72 per cent of national GDP, Jiangsu is second with 11.25 per cent. Zhejiang with 8.21 per cent and Shanghai with 5.44 per cent ranked fourth and fifth respectively in 2004.<sup>8</sup> In sum, these four coastal regions accounted for 36.62 per cent of China's GDP and 38.55 per cent of industrial value added.<sup>9</sup> The share of each region in the Chinese market demonstrates an interesting picture for apparel industrial development from 1991 to 2004. Data on industrial output of apparel products show a great rise and sharp fall in different regions (Table 11).

Guangdong has kept its dominant position with about 22 per cent of market share. Jiangsu significantly increased its share,

from 12.77 per cent in 1991 to 18.35 per cent in 1999 and has maintained one of the dominant positions with about 19 per cent of market share. Zhejiang dramatically increased its share, from 8.42 per cent in 1990 to 21.42 per cent in 2003, and thereafter decreased to 18.21 per cent in 2004. Shanghai has decreased two percentage points since 1999 and more than five percentage points since 1995. The apparel industry has lost its importance as an employer in Shanghai, with the driving force shifting from labour-intensive to capital-intensive sectors such as electronic goods and automobile. In the same period, Shanghai has experienced a reduction in employment in the apparel industry, from 235,000 in 2003 to 222,000 in 2004.

What can we conclude from analysis of the above tables? The garment industry is driven

8. Shandong province, another coastal region, has risen to be the third largest regional economy.

9. *China Statistical Yearbook*, 2005, pp. 51-58, p. 489.

**Table 11. Apparel Industry Output in Four Coastal Regions**

Year	Guangdong		Jiangsu		Zhejiang		Shanghai	
	Billion yuan	% of national output	Billion yuan	% of national output	Billion yuan	% of national output	Billion yuan	% of national output
1990					3.49	8.42	n.a.	
1991			6.68	12.77	5.01	9.58	5.30	10.13
1995			26.19	17.81	n.a.		19.60	13.33
1999			37.41	18.35	31.68	15.54	19.52	9.58
2000			n.a.		n.a.		24.18	10.55
2001	56.74	21.85	51.36	19.78	50.53	19.46	25.60	9.86
2002	63.51	21.79	56.49	19.38	59.58	20.44	28.65	9.83
2003	75.52	22.04	61.73	18.02	73.38	21.42	30.31	8.85
2004	85.19	21.96	72.02	18.56	70.64	18.21	31.02	7.99

Sources: *China Statistical Yearbook*, various issues; *Jiangsu Statistical Yearbook*, various issues; *Zhejiang Statistical Yearbook*, various issues; *Guangdong Statistical Yearbook*, various issues.

by price-based competition among small manufacturing establishments. Shanghai wage levels greatly exceeded those of competitors in inland or western regions. Because regional wages were too high relative to the labour productivity of Shanghai apparel workers, Shanghai manufacturers operated at a significant cost disadvantage. As a result, Shanghai-based apparel manufacturers had to relocate their production

base to more remote regions where wages were much lower. This strategy will be followed by Guangdong, Jiangsu and Zhejiang provinces in the coming years.

The pace of resource relocation for the apparel industry grew quite rapidly in the early 21<sup>st</sup> century, while the less developed regions in China have taken over market share from coastal areas in textiles and textile products.

## B. Industrial Concentration by Firms

The final issue we consider in this section is market structure. We look at the change in the number of firms within 15 years, particularly the years from 2000 to 2004. The apparel industry has had an atomised market structure; that is, there is no barrier to the entry of new firms. Changes in the number of

firms are usually thought to reflect the conditions of entry into the industry. Obviously, low barriers to entry will aid new entrants. An increase in the number of firms will tend to lower concentration because the market share obtained by new firms will lower the relative share of incumbent firms.

**Table 12. Number of Firms in Apparel Industry**

Year	National	Jiangsu	Shanghai	Zhejiang	Guangdong
1990	17,241	n.a.	n.a.	1,734	n.a.
2000	7,064	n.a.	1,386	n.a.	n.a.
2001	8,037	1,221	1,443	1,466	n.a.
2002	9,061	1,418	1,457	1,876	1,959
2003	9,717	1,549	1,412	2,048	2,069
2004	10,901	1,765	1,043	2,270	2,110

Sources: *China Statistical Yearbook*, various issues; *Jiangsu Statistical Yearbook*, various issues; *Zhejiang Statistical Yearbook*, various issues; *Guangdong Statistical Yearbook*, 2003-2005.

The long-term competitive performance of firms producing apparel goods will be shaped by their ability to respond rapidly to domestic and international market demand, while minimising their costs. Table 12 provides a general picture of industrial concentration within the industry. However, the basic measure of concentration used in many studies is the share of the largest four or eight firms in an industry. These ratios measure the extent to which a small number of firms account for a small, medium or large proportion of an industry's output, employment or assets. Since the market structure for the apparel industry is commonly regarded as a very competitive one, and here there is another shortage of data, we just show the number of firms, which is a good description of the concentration changes.

With fast growth of an industry, new entrants are encouraged by the attraction of higher profits, and also barriers to entry may appear less formidable in an expanding market. Many apparel clusters are located in special export-processing zones and small industrialising towns in the Yangtze delta (Shanghai, Jiangsu and Zhejiang) and Pearl delta (Guangdong). At least two important lessons can be drawn from changes of this industrial concentration.

The first concerns the increase in the number of firms in the period 2000-2004, which showed a great change in market concentration. The growth in the number

of firms revealed a lower degree of industrial concentration that must have occurred in this period. Nationally, there was an average of 298 employees for one production unit in the category of all state-owned and non-state-owned enterprises above the designated size, but not for all firms in the industry. Clearly, with expansion of the market, the opportunities for business development in apparel production were significant, and inevitably investors set up new firms to meet the strong market demand.

The second concerns the principal regional trends in terms of output, which show the association between rapid growth in the number of firms and rapid growth of the industry, the only exception being Shanghai's decline in the number of firms in 2004, for reasons already discussed.

Generally speaking, because the apparel sector is dominated by small firms, concentration and strategy are based on decisions at the level of the firm. The level of production concentration is still very low, and there are no barriers for new entrants into the industry. This is reflected in the fact that 3837 new firms joined the apparel industry after 2000. The price of garment products in China has been so seriously competitive that it is impossible for any single firm to influence price determination.

The new entrants greatly contributed to the expansion of China's apparel exports.

## ***VI. Concluding Remarks***

This survey assesses the gains and losses of the apparel sector from export-oriented growth and quantifies the extent to which growth is driven by exports. A discussion of industrial and trade development leads to four broad issues regarding the growth of the garment sector since the implementation of an open-door policy in China, particularly since the late 1990s.

First, trade competitiveness leads to strong output and employment creation. Export growth in this way has created considerable job opportunities for China. Furthermore, from a policy standpoint, the issue of how the benefits of globalisation are distributed is important because increasing exports is expected to help developing economies to create more jobs. This was

true for China's apparel industry in the period 1999-2004.

Second, export expansion by China's apparel industry was also based on foreign direct investment. This experience is also of utmost importance for other developing economies trying to establish an export-oriented apparel industry. Clearly, a friendly environment for FDI is needed at both national and local levels.

Third, China's apparel industry has not increased its capital intensity greatly and labour productivity in garment production has not increased as rapidly as the manufacturing average. However, this industry will have to increase its capital intensity due to wages rising in the overall economy or reorganise production towards relatively high value-added products. The future of China's apparel industry depends, to a large extent, on its specialisation in specific products and its choice of production system.

Exports of high-quality garments need more investments in technology, so it is reasonable to expect that more capital will be injected into this industry.

Fourth, this industry is still important in terms of employment even though the share of garment employment in the manufacturing sector is extremely low. It can be predicted that apparel industry resources will be shifted into other sectors and other parts of China under massive regional industrialisation programmes. If we take Shanghai's apparel industry as a sign of the times, the driving force of China's exports of apparel products will move to non-coastal regions sooner or later.

Clearly, China benefited from its integration into the global production system of the apparel industry. However, a winner will turn into a loser if it can not maintain and increase its competitiveness in global garment markets.

## References

- Almanac of China's Foreign Economic Relations and Trade*, 1988-2002.
- China External Economic Statistical Yearbook 2003-2005*. Beijing: China Statistics Press.
- China Industry Economy Statistical Yearbook*, various issues.
- China Statistical Yearbook*, various issues.
- Enright, Michael J. 2005. 'Rethinking China's Competitiveness', *Far Eastern Economic Review*, October, pp.16-20.
- Ernst, Christoph, Alfons Hernandez Ferrer and Daan Zult. 2005. 'The End of the Multi-Fibre Agreement and its Implication for Trade and Employment', ILO Employment Strategy Papers 2005/16.
- Guangdong Statistical Yearbook*, various issues.
- Jiangsu Statistical Yearbook*, various issues.
- Kuijs, Loutis. 2005. 'China's Pattern of Growth', World Bank Policy Research Working Paper 3767, November.
- World Bank. 1991. *World Development Report 1991*. New York: Oxford University Press.
- Zhejiang Statistical Yearbook*, various issues.

# The Philippine Garment Industry after MFA

Rene E. Ofreneo\*

The garment industry is the second biggest export industry in the Philippines, contributing close to 10 per cent of the country's US\$30 billion annual export earnings. It is a distant second to the electronics assembly industry, which accounts for more than 60 per cent of total export earnings; however, the garment industry, labour-intensive as it is, has remained the leading employer, with more than 300,000 workers.

The industry is quota-driven. It grew rapidly from the mid-1970s up to the mid-1990s because of the quotas provided under the Multi-Fibre Arrangement (MFA). Growth in this period was further aided by the shift in the country's industrial policy regime—from the import-substituting industrial strategy of the 1950s-1960s to the export-oriented industrial programme from the 1970s onwards. The latter provided the justification for the establishment of export processing zones (EPZs) and the bonded warehousing manufacturing units engaged in re-export manufacturing. Garment exporters are based in the warehousing units, EPZs or the private industrial parks registered with the Philippine Export Processing Zone Authority.

With the phasing out of the MFA in January 2005 under the Agreement on Clothing and Textiles of the World Trade Organisation, there have been widespread fears that the Philippine export-oriented garment industry would collapse.

How sustainable is the industry? Is there life for the Philippine garment industry after the MFA? How about the textile industry? And how about the workers and un-

\* Dr. Ofreneo is director of the Centre for Labour Justice, School of Labour and Industrial Relations, University of the Philippines-Diliman

<b>Year</b>	<b>Garment Exports</b>	<b>% of Total Exports</b>
Pre-MFA		
1970	36.21	3.17
1973	57.96	4.96
1975	107.02	4.66
MFA period		
1976	184.87	7.18
1977	249.67	7.92
1978	326.34	9.53
1979	404.22	8.78
1980	500.04	8.64
1981	617.71	10.79
1982	541.32	10.78
1983	545.22	10.89
1985	623.00	13.46
1986	751.51	15.52
1987	1,097.63	19.19
1988	1,317.14	18.62
1989	1,574.92	20.14
1990	1,776.29	21.70
1991	1,860.60	21.05
1992	2,140.34	21.77
1993	2,272.00	19.97
1994	2,375.00	17.61
1995	2,659.93	14.73
MFA phase-out years		
1996	2,422.70	11.79
1997	2,348.42	9.31
1998	2,356.46	7.99
1999	2,267.00	6.47
Source: National Statistics Office.		



ions in these industries? What kinds of adjustments are needed to preserve jobs in

the two industries and strengthen the rights of workers to jobs and unionism?

### **Historical Overview of the Industry**

---

The garment industry grew rapidly from the mid-1970s up to the mid-1990s, becoming the country's leading export industry until it was eclipsed by the rapidly expanding electronics assembly industry in the mid-1980s.

Growth was quota-driven, the industry's rapid expansion taking place during the quota period 1976-1995. Around 80 per cent of total garment exports were destined for the quota countries—the United States, European Union and Canada (Ofreneo *et al.*, 1996). The non-quota markets were Japan, United Arab Emirates and Hong Kong. (Exports to Hong Kong were viewed with suspicion given its role as the export platform for Chinese-made textiles and wearing apparel; the interpretation was that Hong Kong was utilising the unfilled Philippine quotas and mixing Philippine-made garments exports those coming from China.)

Philippine quota under-utilisation fluctuated through the years—ranging from 1 to 28 per cent for US quotas and from 4 to 66 per cent for quotas set by the EEC (ILO-DAP, 1999). The country's under-utilisation of its quotas was the reason for the entry of garment investors from other countries, mainly from the Asian NICs (Hong Kong, Taiwan, South Korea and Singapore), who were labelled 'quota refugees', investors in search of other countries' quotas under the MFA.

Growth could have been stronger in the 1980s were it not for the politico-economic crisis that hit the country in 1982-85. The political succession crisis during the waning years of the Marcos regime and the failure of the national government to service

its foreign debt generated a lot of investment uncertainties and made it difficult for producers to import needed raw materials as a result of an ensuing crisis in letters of credit.

However, as early as the mid-1990s, the industry, unions and government were already intensely debating what to do given the agreement in the WTO on phasing out quotas. Also, there were ominous signs that the Philippines was losing out in global competition, given the rising number of garment factories shutting down and relocating to cheaper sites in Asia such as China, Indochina and Bangladesh.

In 1996, the Regional Tripartite Wages and Productivity Board of Metro Manila asked a research group from the University of the Philippines' School of Labour and Industrial Relations (UP SOLAIR) to do a 'SWOT' analysis of the industry for deliberation by the board's members. In its report, the UP SOLAIR team (Ofreneo *et al.*, 1996) came up with the following major conclusions and recommendations:

1. Accurate employment statistics were difficult to gather because 'the whole industry is basically a subcontracting, re-exporting industry in which raw materials are shipped from abroad for processing (cutting, embroidery, sewing, etc.) and then re-exported to principals abroad'. Production was done partly in the factory of the exporter, partly in the production facilities of subcontractors and partly by household-based domestic outworkers contracted to do piece-rate jobs such as embroidery. It was estimated by the Bureau of Rural Workers that there were more than half a million home workers and about 300,000 factory workers as

of 1993, or over 800,000 workers in all.

2. In the 1992 statistics of the Garments and Textiles Export Board (GTEB), there were 300,000 factory workers deployed in about 3,125 garment and textile factories. However, only 424 enterprises, mainly the big ones employing 50 or more workers, had unions. But the number of organised establishments had been declining due to closures and 're-engineering' or break-up of the big factories into smaller non-unionised firms with new names.

3. Strikes were endemic in the industry in the first half of the 1980s, presumably because of the politico-economic crisis of this period. Strikes, averaging 23 a year, and strike notices, averaging around 190 a year, mushroomed again in the first half of the 1990s, this time because of factory closures, investment relocations, re-engineering exercises and bargaining deadlocks. The biggest closure was that of Aris Garments, employing more than 8,000 workers, which was reported to have relocated to China.

4. The erosion of the number of formal factory jobs due to the above reasons was accompanied by a decline in outsourcing of work to domestic outworkers. This was partly due to the rise of small formal enterprises doing subcontracting jobs of a higher quality, for example using computers in embroidery work. Also, big factories were downsizing operations in favour of increased outsourcing to 'satellite' firms where quality inspectors could be detailed.

5. According to the Confederation of Garments Exporters of the Philippines, the industry was losing international competitive-

ness due to low productivity amid rising wages. A study of GTEB showed that the hourly labour cost in the Philippines garment industry, amounting to \$0.72, was way above those of Sri Lanka (\$0.41), Indonesia (\$0.33), India (\$0.29), Pakistan (\$0.29), Vietnam (\$0.29), China (\$0.25), Bangladesh (\$0.20) and Myanmar (\$0.13). And yet, Ofreneo *et al.* noted that, apart from closure and relocation, the other more common adjustment measure of producers was to 'casualise' labour to make it cheaper instead of investing in productivity-enhancing programmes such as modernisation of technology and improving labour-management relations. Ofreneo *et al.* observed that evading labour rights through casual hiring was self-defeating, since there is no way the Philippines can offset the cheaper labour cost of other countries except through investments in higher productivity.

6. Without the quotas, most of the garments exporters feared that they would lose out to cheaper producers in the Asia-Pacific region and elsewhere.

7. Given the precarious situation of the industry as outlined above, the study came up with a 'Tripartite Agenda' calling for the 'renewal and modernisation' of the sector, close consultation and cooperation between labour and management on adjustment measures, relocation and retraining assistance for workers, government-industry cooperation in overcoming bottlenecks that lengthened turnaround time (roughly averaging 120 days), investments in textile dyeing and finishing to improve garments-textiles linkages and an international campaign for observance of labour rights everywhere.

### **After 1995**

As to the reforms outlined in the above study, not much happened in terms of a tripartite and coordinated industry re-

sponse. The government and industry had their own sectoral initiatives involving minimal union or employee participation.

But the much-anticipated collapse of the industry did not happen either, although there was a decline in export values in 1996-99 (Table 1). In 2000, the government even proudly proclaimed that garment exports (including textiles) topped the US\$3 billion mark. However, exports declined precipitously in 2001-2003 and recovered moderately in 2004 (Table 2), obviously as a result of garment exporters' anticipation of the impact of the MFA total phase-out.

Year	2000	2001	2002	2003	2004
Value (\$m)	3,077	2,896	2,733	2,633	2,674
Source: GTEB, DTI.					

There are several reasons for the survival

of the industry in the 10-year phase-out period.

First, the phasing out of quotas under the WTO, especially by the United States, was done at a relatively less rapid rate because of the fears of the quota countries that big exporters such as China might expand their global shares rapidly at the expense of smaller developing countries. Second, the 1997-98 Asian financial crisis had a dampening impact on plans of certain investors to relocate production in nearby countries such as Indonesia (in fact, there were unverified reports that at the height of the Asian contagion, some producers based in Indonesia shifted some job orders to the Philippines). Third, there are indications that the country's garments exports have shifted to higher value added, with Philippine exports of stone-washed denims, brasieres, T-shirts and, lately, lingerie rising rapidly, while exports of baby dresses, one of the first items to be de-listed in the quota schedule, contracted.

### ***Restructuring in the Industry: Contrasting Views and Images***

The last factor explains why the overall export values had not declined below the 1995 level. It also explains why unions as well as the Department of Labour and Employment (DOLE) were expressing alarm over the continuing trend of closures and lay-offs in the industry, especially in unionised firms. Those producing garments for the mass market were being replaced by producers for brand names such as Gap, Ann Taylor, Liz Claiborne, Polo, Ralph Lauren and so on. Gap, in fact, has become the single biggest buyer of Philippine garments, purchasing as much as \$200 million of goods annually (Bolte, 2004). On the other hand, Luen Thai, an US-Hong Kong firm doing business Asia-wide, has become the biggest employer, exporting Polo and other branded products out of several production facilities in various parts of the country.

Given the emphasis of the brand retailers on 'corporate social responsibility', the domestic brand producers or subcontractors have also readily embraced the campaigns of the ILO and the United Nations for the Decent Work Programme and the UN's 'Global Compact Initiative' (GCI), emphasising the importance of employer observance of core labour, human and environmental rights. Both the Decent Work Programme and the GCI are actively being promoted by the Employers Confederation of the Philippines, which at one time was headed by Donald Dee, a prominent garment exporter and now president of the Philippine Chamber of Commerce and Industry.

Likewise, the major exporters have been cooperating with their international buy-

ers regarding quality, labour and social audits under these buyers' 'codes of conduct' or 'terms of engagement' or the suggested 'certification process' regarding quality assurance (ISO 9000), environmental friendliness (ISO 14000), labour and social accountability (ISO 8000), health and safety standards (OSHAS 18000) and the like. They have also supported the GTEB's 'transformation' programmes, which include orientation on how to comply with the foregoing certification process. GTEB even dangled incentives such as higher quota allocations for compliance and subsidies to cover the cost of certification (up to US\$1,200). Companies were also encouraged to become accredited in the GTEB's social standard dubbed as the 'Responsible Apparel Production Principles' (Bolte, 2004).

The problem is that not all garments producers are engaged in the production of branded items, nor are all, especially second- or third-level subcontractors, in a position to comply with the expensive and time-consuming corporate social responsibility audits and certification processes. It can only be presumed that most of the painful labour-shedding exercises have been taking place in the sector producing for the mass market and among those engaged in household-based subcontracting of piece-rate sewing and embroidery.

As to the actual impact of the MFA quota phase-out on an enterprise-by-enterprise basis, therefore, different institutions give contradictory views on the short- and long-term prospects of the industry.

GTEB, on the basis of relatively sustained exports as outlined above and the increasing demand for high-end garments products, has been gung-ho about the industry, declaring since 2002, the year the GTEB's 'industry transformation programme' was launched, that there is nothing to fear. It reported that while 159 companies closed

down with the loss of 23,500 jobs between 2000 and the middle of 2003, there were also 313 new companies organised in the same period, generating 35,024 new jobs (GTEB Update, 10 March 2004).

On the other hand, the unions, DOLE and a number of industry players in the old Garments Business Association of the Philippines (GBAP) were not as optimistic.

In 2002, the following items were removed from the US quota list: luggage, dressing gowns and baby clothes. According to Dr. Carolyn Sobritchea of the University Women's Studies Centre of the University of the Philippines, the share of the Philippines in the US luggage market shrank by 54 per cent that year, while the share of China increased by 664 per cent. For dressing gowns, the Philippine share went down by 37 per cent, while China's rose by 698 per

**Table 3. Garment Industrialists' Views Post-MFA (%)**

Category	Yes	No	Other
Adverse impact of end of quotas	86	14	
Experiencing decrease in orders	77		
<b>Intending to hire more workers</b>		<b>100</b>	
Temporary shutdown, lay-off, rotate workesr	62	38	
Subcontracting out	70	30	
Intend to remain in business till 2006	77	5	18 not sure
Source: GBAP Survey, 13 April 2005, of 64 respondents, representing 35% of GBAP membership.			

cent; and for baby clothes, the Philippines' share shrank by 17 per cent, while China's surged by 826 per cent (Sobritchea, 2004).

Thus, it is understandable that in 2002-04, on the eve of the MFA quota phase-out, most of the above actors were extremely worried and in a crisis mood. Many of the big factories employing thousands of unionised workers, such as Aris, Novelty, Gelmart and Karayom had already closed down and were reported to have relocated

under new names in China, Indochina, Bangladesh and even faraway Nicaragua. Incidentally, Filipino migrant workers in Bangladesh consist mainly of garment line supervisors, who were brought in by the relocating garment investors-exporters.

The industry was 'ripping at the seams' in 2003-04. Table 3 sums up the anxieties and crisis of uncertainty being felt by industry players associated with GBAP and presumably by other non-GBAP members.

### ***Varied Sectoral Responses to the Quota Phase-out***

---

Naturally, most of the affected sectors raised alarms over the impending quota phase-out.

In 2003, around 13 federations and big unions formed a 'Labour Forum Beyond the MFA' and criticised the government for its failure to deliver the 'safety nets' it promised in 1994, when the government ratified Philippine membership in the WTO. The forum came up with an eight-point agenda on market access and trade facilitation (with social dialogue and a tripartite programme to push for markets), employment (government supporting job-creating programmes), social protection and safety nets (government support to post-employment programmes), skills development/education/training, labour relations and social accountability (to strengthen labour rights), strengthening wage compliance, observance of decent working conditions and facilities in economic zones and structural reforms (with focus on revival of the Garment and Textile Tripartite Industry Council and the strengthening of GTEB).

In February 2004 a 'Garments Mini-Tripartite Session' was held in support of welfare programmes for displaced workers such as micro-finance credit facilities, speedy adjudication of labour cases to facilitate release of workers' benefits, more transparency by garment/textile firms regarding their financial situation, release

of unpaid social security benefits of workers, remittance of social security premiums and punishment for employers violating rights of workers. There were other consultations made by DOLE, the National Commission on the Role of Filipino Women and others seeking or promoting safety nets for workers.

A multi-sectoral conference, 'Women's Jobs on the Brink: How Can the Garment Industry Be Transformed?', was also organised by the Fair Trade Alliance on 10 March 2004. The multi-sectoral meeting came up with a list of demands:

- creation of jobs for garment union members;
- preservation of existing jobs;
- review of the modernisation/restructuring programme;
- seeking of niche markets for garment companies to preserve business;
- legislation requiring employers to post a bond to cover payment of workers' benefits upon company closure.

The Confederation of Garments Exporters of the Philippines, the largest association of garment export manufacturers, signed up to the Istanbul Declaration in June 2004, formally joining the other 78 exporter groups from 36 developing and developed countries calling for a three-year extension

**Table 4. Philippine Garment Industry Employment, 2003-2005**

	2003	2004	2005	% decline 2003-04	% decline 2004-05
No. of Active Exporters	945	887	750	6.1	15.4
No. of Subcontractors	1,094	730	709	33.3	2.9
Total Employment	700,000	400,000	n.a.	42.9	

Note: Total employment includes indirect and home workers.  
Source: 8th meeting of CTITC, 16 March 2006.

of the MFA. Later, the confederation has also been advocating a free trade agreement between the Philippines and the US in an apparent bid to restore the quota via a new bilateral trade arrangement.

But there are no certainties about any of these initiatives.

The only thing clear is that industry employment continues shrinking despite the contrary claims of the GTEB. The DOLE regional offices in the National Capital Region, Region III and Region IV have been reporting downsizings and closures in the industry. The share of the quota-driven Philippine garment industry in the world's total garment output was roughly 4 per cent. With the quota phase-out, this share is projected to shrink to 2 per cent of the global total (*Financial Times*, 19 July 2004).

As pointed out earlier, it is difficult to gather accurate statistics on employment in the garment industry given its multi-layered subcontracting system. Moreover, the GTEB and DOLE have been unable to monitor the employment impact (adverse or favourable) of the industry restructuring taking place since

the early 1990s. However, in the March 2006 meeting of the Clothing and Textile Industry Tripartite Council (CTITC), distressing figures on an industry on a decline were presented (see Table 4). In 2003-04 alone, industry employment was estimated to have shrunk by more than 40 per cent. That such a drastic and dramatic decline was not met with widespread mass protests in the strike-prone Philippines can probably be explained by the fact that most of the big unionised factories closed much earlier, mainly in the 1990s and early 2000s. More recent job disappearances took place mainly among the distressed marginal factories with declining job orders, small subcontracting firms and depressed urban and rural villages in and around Metro Manila doing home-based outworking. The Pambansang Tagapag-Ugnay ng mga Manggagawa sa Bahay, a national association of home-based workers, has been reporting high rates of joblessness in Taytay, Rizal, and Pandi, Bulacan, two towns heavily dependent on home-based working, and a need for greater 'social protection' for domestic outworkers.

The most affected workers are women, who predominate at all levels of the industry.

### ***Structural and Labour Weaknesses of the Industry***

The employment and adjustment crisis gripping the industry in the post-MFA period can be traced to what Angelito Mendoza, a CTITC member and head of the Garments and Textile Council alliance of garment unions, called the 'artificial,

exaggerated and unsustainable' nature of the industry.

Value added in the industry is only 30 per cent, meaning that for every dollar worth of exports, only 30 cents are earned by the

Philippines. This is because the industry is dependent on imported textiles, yarns and machines. This is why the EPZs, bonded warehousing manufacturing units and duty-free privileges for the imports of garment exporters are crucial to the industry.

The low value added, mainly the labour component, is due to the absence of linkages with a well-developed domestic textile industry such as is found in China, India, Pakistan, Vietnam and the developed countries. In fact, the growth of the textile industry has been stunted partly by the growth of the export garment industry. Cheaper and tax-free imported textiles, yarns and accessories, stored by licensed garments exporters in their duty-free bonded warehouses located in the EPZs, industrial parks and their own production facilities, have found their way into the domestic market, easily displacing the products of the domestically oriented textile industry.

The absence of a well-developed textile industry supplying the requirements of the export-led garment industry is one source of the lack of competitiveness of the latter. It prolongs turnaround time, especially if there is a need to import certain raw materials. Costs of the imported textiles and other materials are also dependent on the suppliers, usually the principals themselves engaged in international subcontracting of garment production.

These principals, given their global purchasing system and their partner garment integrators, mostly companies from the Asian NICs, can easily go in and out of a country, relocating to other places around the globe what they deem to be the more expensive ('inefficient') activities of the Phil-

ippines. The simple truth is that most Philippine garment exporters are subcontractors for these international buyers, branded or not, with CSR certification or not.

Thus, one direct outcome of the pressures of global efficiency-raising benchmarking on the Philippine garment industry is the effort of the local industry to reduce the cost of labour, which is the main cost item, and increase the overall productivity of workers. The problem is that in many cases, employers resort to low-level types of industrial relations and human resource management practices and adjustments such as the non-regularisation of the workforce (removing workers from the payroll before they reach mandatory regularisation), union busting and so on. A few exemplary companies adopt the high-end types of adjustments such as multi-skilling and motivating workers through better compensation systems, better working conditions and investments in training. The latter, however, are few in number.

Another downside is neglect of the potential of the domestic market. With 85 million Filipinos, the garment and textile industry has a large market to cover and a base for sustainable growth and development.

Ironically, this market has been captured by foreign exporters, mainly those engaged in smuggling brand-new as well as slightly used garments from Hong Kong and other countries. These imports can be found being retailed nationwide, in the malls as well as in the informal markets in all cities and big towns. Thus, while the Philippines tries to sell garments in the global market, its own domestic market has been flooded by foreign-made apparel.

---

### ***Sustainability of the Export-Led Garment Industry***

---

The export-led garment industry has survived the end of the MFA. However, a painful restructuring is taking place, with over-

all employment shrinking severely. A preliminary report by a Philippine study team to the UNDP Asia-wide garment tracking

project (Francia et al., 2006) showed that garment exports increased slightly, by 6.34 per cent, from US\$2.11 billion in 2004 to US\$2.24 billion in 2005. This means the industry is indeed surviving, and probably even growing. Of the top 10 major export markets for garments in 2005, the United States remains the top destination, with a 78 per cent share of value compared to 75.1 per cent in 2004. The value of exports to the US increased by 10.3 percent (see Table 5).

However, it is too early to say that the increase will develop into a definitive trend. In the first place, the industry was helped mainly by the reassurance from the United States that it would continue to impose limits on Chinese garment exports up to 2008. Without the United States, the Philippines has very little market to speak of. This US market is what the GTEB and other policy makers are telling the industry players is a challenge for upgrading their operations so that they can be competitive globally in the long run.

Attaining such competitiveness, however, depends on many things, such as the ability to develop niches for Philippine-made garments, the capacity of the government to reduce the cost of doing business (reducing the cost of power and overcoming infrastructure bottlenecks) and the ability of the government, industry and labour to overcome other handicaps in global competition (for examples, lack of a textile-garments linkage) through other sources of competitiveness such as better and original designs, productivity enhancement and the like.

The truth, unfortunately, is that other countries are also thinking along the same lines. It is a question of how decisive the Philippines is in coming with up an integrated and forward-looking programme for the industry.

Another fundamental issue is how survival and competitiveness can be achieved without displacing workers and without sacrificing labour rights.

**Table 5. Export Destinations of Philippine-Made Garments, 2004-2005 (US\$ FOB)**

	2004	% Share	2005	% Share	% Change 2004-2005
United States	1,584,685,055	75.06	1,748,386,579	77.88	10.33
UK	82,801,943	3.92	92,912,960	4.14	12.21
Japan	63,985,497	3.03	60,719,807	2.70	-5.10
Canada	61,039,949	2.89	58,265,965	2.60	-4.54
France	34,409,702	1.63	40,728,361	1.81	18.36
Germany	54,803,289	2.60	36,619,874	1.63	-33.18
Netherlands	36,329,686	1.72	27,396,027	1.22	-24.59
Hong Kong	18,105,715	0.86	24,099,679	1.07	33.11
Italy	19,023,687	0.90	20,372,419	0.91	7.09
Mexico	14,160,035	0.67	17,770,068	0.79	25.49
Others	41,839,333	6.72	117,824,673	5.25	-16.93
Total	,245,096,412	100.00	2,111,183,891	100.00	6.34



## References

- Adhikari, Ratnakar and Yumiko Yamamoto. 2006. *Sewing Thoughts: How to Realize Human Development Gains in the Post-Quota World*. Colombo: UNDP RCC.
- Austria, Myrna. 1994. *Textile and Garments Industries: Impact of Trade Policy Reforms on Performance, Competitiveness and Structure*. Makati: Philippine Institute for Development Studies.
- Bolte, Patrick. 2004. *The Global Compact, Corporate Social Responsibility and Textile and Garment Companies in the Philippines*. Berlin: Freie Universität Berlin.
- Clothing and Textile Industry Tripartite Council. Minutes and materials of the 16 March 2006 and 13 April 2005 meetings.
- Francia, Joseph, Errol Ramos and Angelito Mendoza. 2006. *Philippine Trade in Garments, Textile, Yarn and Fabric and Other Made-Up Textile Materials*. Preliminary Report to the UNDP's Garments Tracking Project in the Post-MFA Period, UNDP Regional Centre, Colombo.
- Ibon Databank and Research Center. 2001. *The Philippine Garment and Textile Industries*. Manila: Ibon Foundation, Inc.
- ILO-PDC/DAP. June 1999. *Productivity Improvement, Competitiveness and Quality Jobs in the Philippine Garment Industry*, Mandaluyong: Development Academy of the Philippines.
- ILO. 2005. *Promoting fair globalization in textiles and clothing in a post-MFA environment*, Geneva: ILO.
- Jonquieres, Guy de. 2004. 'Clothes on the line: the garment industry faces a global shake-up as quotas end', *Financial Times*, London, 19 July.
- Labour Forum. 2004. 'Beyond MFA: Labour Action, Policy and Legislative Agenda Toward Industry Transformation', resolutions of IGTF-affiliated unions in the Philippines.
- Mendoza, Angelito, 2004. 'Will there be life for the Philippine garment industry after the death of the MFA?', paper presented at the Labour Conference on the COC and the MFA, Instituto de Formacao de Turistica, Macau, in August.
- Ofreneo, Rene, Marina Durano and Nenita Fernando. 1996. *Garments and Textile Industry Report*. Manila: Regional Tripartite Wages and Productivity Board.
- Ofreneo, Rosalinda and Jurgette Honculada. 2003. 'The Philippine social protection study', in Francie Lund and Jillian Nicholson (eds.), *Chains of production, ladders of protection*. Durban, South Africa: School of Development Studies, University of Natal.
- Oxfam Hong Kong, 2003. *The Multi-Fibre Agreement (MFA) and the Agreement on Textiles and Clothing (ATC): Looking at Winners and Losers in the Textile Trade*. Hong Kong.
- Sobritchea, Carol. 2004.. 'Presentation' at the conference on 'Women's Jobs on the Brink: Can the Garment industry Be Transformed?', held at the University of the Philippines, 10 March 2004.

# Indonesia's Garment Industry before and after the Asian Economic Crisis

Thee Kian Wie\*

Since the mid-1980s, Indonesia's garment industry has emerged as one of the most important export-oriented industries, generating a rising stream of foreign exchange and many job opportunities because of its labour-intensive production process. However, after the Asian economic crisis, garment exports declined because of declining competitiveness and strong competition from

other developing countries, particularly China, Vietnam, India and Bangladesh.

This paper will first give an overview of the development of the garment industry before the Asian economic crisis. It will then discuss the development of this industry after the crisis, the problems it is facing at present and the prospects for its revitalisation.

## *Before the Economic Crisis*

---

### **The Period of Rapid Growth**

---

Indonesia's garment industry is relatively young, emerging as a factory activity only since the mid-1970s in response to growing export opportunities and the expanding domestic market. Until the 1970s, garment production was largely conducted in the many tailor shops all over the country (Hill, 1992: 8).

Growth of the industry was quite rapid from the late 1970s in response to rapidly rising demand in the domestic market and improving opportunities in export markets (Pangestu, 1997: 31). The export orientation of garment firms was also encouraged by Indonesia's competitive advantage in labour costs and unutilised quotas in the large quota-constrained export markets of the US and the EC (Wymenga, 1991b: 212).

By 1975 there were 72 industrial garment establishments, in which 2,804 workers were employed. In the same year, about 4,800 persons, mostly females, were employed in small-scale garment production. However, in 1986 there were 565 large-

and medium-scale garment plants in operation, which together employed an estimated 63,576 workers, most of them female. In addition, there were also 6,963 registered small-scale garment establishments employing 46,940 workers. In addition to these small, medium, and large establishments, there were numerous cottage or home establishments engaged in garment production (Wymenga, 1991b: 212).

Production capacity increased rapidly due to the rapid increase in the number of garment plants, from about 250 in 1975 to more than 2,000 in 1991 (Pangestu, 1997: 33) and the corresponding rapid increase in the number of sewing machines during the period 1980-1990 and a rapid increase in the number of workers, from 14,350 to 105,007, a six-fold increase. Fabric consumption by the garment industry rose 78 percent between 1985 and 1990 (World Bank, 1994: 21). As a result, garment output increased from 50,400 tons in 1978 to 171,250 tons in 1989. As the garment industry became export-oriented in the late

\* Senior economist, Economic Research Centre, Indonesian Institute of Sciences (P2E-LIPI), Jakarta.

1980s, garment exports during the same period rose rapidly, from US\$42.9 million to US\$1,248 million (Sastromihardjo, 1991). By 1989 garment exports and plywood ranked as Indonesia's two most im-

portant manufactured exports, with plywood accounting for 21.3 per cent and garments 10.6 per cent of total manufactured exports.

**Table 1. The Garment Industry in Indonesia's Manufacturing Sector, 1990-2002**

	Gross Value Added (bn rupiah)			Employment ('000 persons)		
	1990	1996	2002	1990	1996	2002
Garments	820.8	2,721.4	9,300	240.1	363.6	446.3
% of Manufacture	3.6	3.2	3.4	9.0	8.6	10.2
Total Manufacture	22,843.9	85,241.4	269,000	2,662.8	4,214.9	4,385.9

Source: Badan Pusat Statistik: *Statistik Industri Menengah dan Besar*.

The data in table 1 show that although the garment industry is not very significant in terms of gross manufacturing value added, in terms of manufacturing employment it is an important industry, employing 10 per cent of the workers in the manufacturing sector.

Unlike the spinning and weaving industries, in which there is a significant presence of foreign investors (26 per cent and 16 per cent respectively), the garment industry is dominated by domestic private firms. However, since the late 1980s foreign firms have also entered the garment industry as investors from the east Asian newly industrialised economies (NIEs), particularly South Korea, Taiwan and Hong Kong, relocated most of their labour-intensive operations to lower wage countries in southeast Asia, including Indonesia. Most of these operations in Indonesia consisted of garment and footwear plants. For instance, according to data provided by the Jakarta office of KOTRA (Korean Trade Association), of the 100 Korean plants operating in Indonesia

in 1990, 35 were garment plants and 15 footwear plants.

During the first half of the 1990s, local private garment firms dominated the industry, making up 91.9 per cent of the total in 1990 and still 84.6 per cent in 1993, after many foreign firms from the east Asian NIEs had already entered to use Indonesia as a lower cost export platform (Pangestu, 1997).

The increasing export orientation of the industry, particularly local private firms, from the mid-1980s was mainly caused by the increasing attractiveness of the export market and the sluggish growth of the domestic market following the end of the oil boom era in 1982. Exporting became a profitable undertaking with the shift from import-substitution to export promotion policies. The Indonesian government from the mid-1980s introduced a series of trade reforms to reduce the 'anti-export bias' of its highly protectionist trade regime and also pursued a realistic exchange rate policy to maintain the exchange rate at a competitive level (Thee, 1991: 7).

The most important trade reform was the May 1986 deregulation package, which introduced a duty exemption and drawback scheme that enabled export-oriented manufacturing firms (defined as firms exporting at least 85 per cent of their output, later lowered to 65 per cent) to purchase their inputs, whether imported or locally made, at international prices. Export-oriented garment firms, particularly new firms, were able to benefit from this scheme because they imported most of their raw materials (Wymenga, 1988: 6). Abolishing restrictive import licences was very helpful for the export-oriented garment firms. As a result, garment exports rose steadily over the period 1986-1996, although after 1993 growth became more uneven (Table 2).

Indonesia's leading garment exports included shirts of synthetic fibre for men and boys, blouses of artificial fibres for women

and girls and cotton trousers for men and boys. Fabrics and other raw materials were imported for high quality garments. For standard garments, raw materials were usually sourced in Indonesia (Wymenga 1991a: 213).

In addition to the trade reforms and the sensible exchange rate policy, other factors contributed to making garment exports attractive. First, the availability of underutilised import quotas as provided under the Multi-Fibre Agreement (MFA) in the major export markets for garments, namely the US and to a lesser extent the European Community, was a strong incentive to produce garments for the export market even before the mid-1980s. The availability of these unutilised quotas and the strong comparative advantage of Indonesia's garment industry, which was largely based on its low labour costs, attracted garment firms from the East Asian NIEs, notably Hong Kong, South Korea and Taiwan, to set up new garment plants in Indonesia. These garment plants thus served as export platforms to supply the quota countries, including the US, Canada and the EC countries, as well as the non-quota countries, including Japan, Australia, New Zealand, Singapore and countries in the Middle East (Thee *et al.*, 1989: 22).

However, by the end of the 1980s the quota ceilings set under the MFA for a variety of garment categories had been reached and therefore became an important constraint on further export growth, particularly for the cheaper garments at the lower end of the market. Since about 90 per cent of Indonesia's garment exports at the time were directed at the MFA-constrained markets, particularly the US and the EC (Hill, 1992), redirection to non-MFA-constrained markets was imperative. The great dependence of garment exports on a single export market, the US, is indicated by the fact that in 1989, 49 per cent of these exports were directed at the US, while the second larg-

**Table 2. Indonesia's Garment Exports, 1986-1996**

Year	Value (\$ million)
1986	527
1987	614
1988	822
1989	1,248
1990	1,570
1991	2,203
1992	3,212
1993	3,395
1994	3,096
1995	3,324
1996	3,086
Source: Bank Indonesia.	

est market, West Germany, absorbed only 8.5 per cent, followed by the Netherlands with 6.3 per cent (BPS, 1989).

Although from the mid-1980s many new export-oriented garment plants were established, notably in the Bandung area in West Java province and in the Cakung Export Processing Zone in the vicinity of Jakarta's Tanjung Priok harbour, many garment firms in the late 1980s still catered mainly to the domestic market (Thee *et al.*, 1989: 21). For instance, in 1986 only about 36 per cent of the value of gross output of the garment industry was exported. Garment firms oriented towards the domestic market consisted mainly of small-scale firms catering mainly to local or individual requirements. For this reason, they played an important role in tailoring, in subcontracting for large garment firms and in producing textile handicrafts (Wymenga, 1988: 3).

That the garment industry, even after the trade reforms of the late 1980s, was still largely domestically oriented was due to the fact that both textiles and garments continued to enjoy tariff protection and various import restrictions, such as import surcharges, import licensing procedures and selective tariff exemptions. Although nominal tariffs had been falling over time since the mid-1980s, effective rates of protection on import-competing goods remained higher than on export-competing goods, thus imparting a persistent bias in favour of firms selling in the domestic market rather than in export markets.

While export-oriented garment firms could purchase their tradable inputs at international prices (whether imported or locally made), they still had to purchase their non-tradable intermediate inputs at 'above free trade prices', with the result that their export sales received negative effective protection.

However, garment firms selling in the do-

mestic market continued to enjoy a high level of effective protection on their value added. Because of this dual structure of protection, there was a sharp dichotomy between the firms that were internationally competitive and which exported and those firms that were not competitive and which therefore served the domestic market (World Bank, 1994: 22).

Other types of regulations also penalised export-oriented textile and garment firms. These included the imposition of a compulsory levy on garment exports to countries applying quota restrictions, granting a single designated firm the sole right to import cotton and synthetic fibres required by the spinning industry (rescinded after industry complaints) and the operation of a non-transparent system for the allocation of export quotas (Thee and Pangestu, 1998: 218).

Several export-oriented garment firms said that the Multi-Fibre Agreement was the major obstacle to their future growth. While some firms appeared to experience no problem in obtaining quotas, others complained about the lack of transparency and premiums having to be paid. On paper, the general allocation of quotas was based 80 per cent on past export performance and 20 per cent to new exporters and small firms. The annual increase in quotas was given to these new exporters and small firms (World Bank, 1994: 22).

Given the remaining 'anti-export bias' of the trade regime in the late 1980s and other restrictive measures, the question arises why garment exports were nevertheless able to increase so rapidly. The most important factor appears to be the duty exemption and drawback scheme, which enabled export-oriented firms to procure their intermediate inputs at international prices with few bureaucratic hurdles. In this way, they were able to operate as though they were in an export-processing zone (Hill, 1992:

31-33). Another important factor in the surge of manufactured exports, including garment exports, from 1987 was Bank Indonesia's ability to maintain the real effective exchange rate at a competitive level (Thee and Pangestu, 1998: 219).

Two other factors accounting for the rapid expansion of Indonesia's garment exports were the strong linkages with foreign buyers that were established from the mid-1980s and the improved reputation among these foreign buyers about the garment industry's ability to provide quality products and keep to tight delivery schedules (HIID, 1995: E.5). The linkages with foreign buyers were established when buying agents from Hong Kong, acting on behalf of foreign buyers (mostly department stores in the developed countries) to look for low-cost sites in south-east Asia, approached Indonesian garment firms to start making garments according to the stipulated designs of the foreign buyers.

The crucial role of foreign buyers is particularly evident in the interesting case of the garment industry in Bali, which from the mid-1970s through the early 1990s experienced rapid export growth. The remarkable growth of Bali's exports was based on crucial information flows that Balinese firms received through strategic business alliances with foreign firms and businesspeople (Cole 1998: 257).

The remarkable thing about the export success of Bali's garment industry is that it mostly consisted of rural-based small and micro enterprises largely owned and run by *pribumi* (indigenous) Indonesian entrepreneurs. Another remarkable feature of Bali garment exports was that this industry was able within a relatively short time to produce highly competitive products for the international market, and that these products were largely made from domestic material inputs. Moreover, unlike many large domestic firms that were able to benefit

from government protection or implicit or explicit subsidies, Bali's garment industry did not receive any government subsidy. In fact, the rapid growth of this industry had been neither anticipated nor planned by the government (Cole 1997: 2).

The major factor that triggered this success was the presence of foreign buyers/entrepreneurs from Australia and later from the US, Europe and Japan, many of whom initially came as tourists, who were able to establish direct contacts with local entrepreneurs. Through the vital information transfer and technical and managerial assistance (for instance in plant layout, advice on the purchase of the most appropriate machines and quality-control techniques) provided by the foreign buyers/entrepreneurs to the small and micro Balinese firms, these firms were able to achieve high levels of efficiency and accuracy. This assistance was provided on a for-profit basis, since it was specifically tied to tangible product outputs (Cole 1998: 275; Thee & Hamid 1997).

The ongoing interaction of these two parties started a virtuous cycle of technological improvements and learning that was self-replicating and largely self-financing, which led to rapid and sustained export growth (Cole 1998: 275). This export performance could be sustained even after the onset of the Asian economic crisis, since these foreign buyers/entrepreneurs, unlike foreign investors, still kept visiting Bali after the crisis because the island was largely spared the unrest and breakdown in safety and law and order that afflicted some other regions in Indonesia, at least until the devastating bomb attacks in Bali on 12 October 2002 and again in late 2005. Not surprisingly, these bomb attacks led to a much reduced inflow of foreign tourists, including foreign buyers.

As regards relative export orientation, three categories of garment firms in Indonesia

can be distinguished, namely local private firms, government (state-owned) firms and foreign-invested firms. Since foreign garment firms established their plants in Indonesia primarily to serve export markets, it is not surprising that they were more export-oriented (in the sense of having a higher export-output ratio) than the local private firms (Table 3).

**Table 3. Export-Output Ratios of Garment Firms, 1990-93 (%)**

	1990	1993
Local Private	38.5	37.8
Government	46.2	73.4
Foreign	57.4	65.3
Source: Pangestu, 1997, p. 36.		

Many of the best equipped garment plants with modern cutting equipment were joint ventures, mostly with South Korean and Taiwanese garment firms. About 90 per cent of the garment exporters worked on a CMT (cut, make and trim) basis for overseas buyers, with little local design input. While the local firms' lack of a design department helped keep overhead costs down, this also limited the scope for the firm to offer alternative ideas and to work on a more equal basis with foreign buyers. However, some firms, particularly the joint ventures, started to invest in computer-aided design (CAD) equipment. For several garment firms, a constraint on expanding output and maintaining product quality was difficulty in recruiting skilled and experienced middle management and technicians. As a result of the excess demand for skilled technicians, their pay was in many instances higher than that of their counterparts in Thailand or Singapore (World Bank, 1994: 22).

### The Period of Sluggish Growth

From 1994 through 1996, the garment industry grew at a more sluggish rate, as garment exports growth slowed. Garment exports increased only marginally in 1993, declined in 1994, recovered slightly in 1995, and then declined again in 1996 (Table 2). These disappointing results were primarily a result of falling prices, quota limitations and sharp international competition (HIID, 1995: E.1).

Interviews with several garment exporters by a Harvard Institute of International Development (HIID) team in 1995 revealed that they faced serious difficulties because of the intensified international competition, which caused many firms to close or relocate to lower cost sites in other countries, such as Vietnam. The press in that period reported that as many as 76 garment firms had closed in 1994. Hong Kong-owned garment firms stated that their factories in

China were making profits, while their Indonesian plants were struggling to survive (HIID, 1995: E.5).

The slowing in the growth of garment exports was not really surprising. The surge of garment exports that started in the late 1980s was possible because of the unfilled quotas in the US and the EC. However, these quotas were mostly utilised by the mid-1990s (Pangestu, 1997: 49). The export opportunities that opened up as a result of the relocation of garment plants from South Korea and Taiwan had also been exhausted by the early 1990s (HIID, 1995: E.5).

However, quotas alone could not account for the sluggishness of garment exports, because after an agreement between the Indonesian and US governments, quota allocations for Indonesia were increased by

more than 35 per cent (Thee and Pangestu, 1998). As a result, for some garment categories there were unfilled quotas. The biggest decline in garment exports took place in non-quota markets, caused by strong competition from other low-wage countries, including China, India and Bangladesh. The competitiveness of Indonesian garment exports was further eroded by the government's mandatory minimum wage policy, which was not matched by a corresponding rise in labour productivity (Pangestu, 1997: 49). As a result, per unit labour costs rose relative to those of Indonesia's competitors.

Another source of difficulty for exporting garment firms was that much garment production depended on imported fabrics. Hence, delays in delivery of fabric seriously extended the tight turn-around times required for the production of middle and high-end garments. Unfortunately, local sourcing of fabrics was hampered by the lack of textile finishing capacity, general lack of export quality fabrics, lack of high quality cotton fabrics, the unwillingness of textile manufacturers to meet small frequent orders, difficulties with the tax office in reclaiming the value added tax on domestic fabrics and the protection enjoyed by fabric producers, which allowed them to get higher prices from domestically oriented firms than from export-oriented firms (HIID, 1995: E.12).

One important indication of the garment industry's reduced competitiveness was revealed by a study that found that Indonesia's garment exports had declined most sharply in the non-quota markets, with a small decline in volume accompanying a larger decline in unit value. In contrast, in the quota markets, volume declines exceeded value declines. Garment exports from 1994 experienced a decline in market share, indicating that Indonesia was facing increasingly tough competition from

Vietnam, the Philippines, China, India, Pakistan, Sri Lanka and Bangladesh (James, 1995: 22-5).

Assessing the weakness of the Indonesian garment industry, a report submitted in 1995 by Sanjaya Lall and Kishore Rao to Indonesia's National Development Planning Board (Bappenas) concluded that the industry had to raise its productivity, design and local content in order to raise its export competitiveness. In addition, the domestically oriented firms had to be encouraged to produce for export markets also, which required that their domestic skills and technology be raised (Lall and Rao, 1995: 139).

Lall and Rao recommended that steps be taken in investment and financing and the improvement of market analysis. In regard to investment and financing, the declining rate of equipment imports by the industry had to be reversed so that more value added could occur within Indonesia.

Improving market analysis was also strongly recommended because the Indonesian firms had to keep close track of trends in different garment categories and markets. While large firms had few problems in doing market analysis, the smaller firms were generally unable to undertake the investment required and thus remained completely dependent on foreign buyers. For these firms, a detailed market share analysis and comparisons with major competitors would be crucial to devising coherent and timely responses to changing needs (Lall and Rao, 1995: 139).

A World Bank study concluded that, to achieve sustained growth, the garment industry would also have to shift to higher quality products, with more own design content to achieve higher value added. Since the industry had already gone through the basic skills learning curve, it would henceforth need to strengthen its market posi-



tion by improving its skills in production management, product quality improvement

and logistics, and also add an element of own design input (World Bank, 1994: 23).

### ***After the Economic Crisis***

---

The severe Asian economic crisis of 1997 and 1998 had a devastating impact on the Indonesian economy. The crisis struck in mid-1997, but its greatest impact was felt in 1998, when the economy contracted by an unprecedented 13.1 per cent. The manufacturing sector, which after the end of the oil boom era in 1982 had emerged as the major engine of growth and the major source of export revenues, contracted by 11.1 per cent, while the textile, leather and footwear industry (ISIC 32) contracted by 14.9 per cent.

The economy recovered slightly in 1999 with a positive but minuscule growth rate of 0.8 per cent, while the manufacturing sector grew 3.9 per cent and the textiles, leather products and footwear industry grew 8.5 per cent. In the following years, growth rates picked up, the economy growing at an average annual rate of 4.6 per cent over 2000-2004, compared to an average of 7 per cent during the 30 years of the Soeharto era.

Also during 2000-2004, the manufacturing sector grew at an average annual rate of 5.2 per cent, while the textile, leather products and footwear industry averaged 4.9 per cent (BPS). During the Soeharto era, the manufacturing sector averaged growth at double digit rates.

The vibrant textile, garments and footwear industries, which spearheaded Indonesia's labour-intensive, export-oriented industrialisation from the late 1980s to the crisis, are now facing great difficulties. During a short period immediately after the crisis, export-oriented firms, including the garment industry, benefited from the sharp but short-lived exchange rate depreciation.

However, after 2000 export growth decelerated sharply, since these firms seemed unable to compete with China, Vietnam and other low-cost producers. While international competition in the industry has intensified, Indonesia's garment industry has become less competitive (Aswicahyono and Hill, 2004: 289-90).

The size and dynamism of the Chinese economy, its cost advantages and its large pool of labour resources have changed the rules of international competition (James, Ray and Minor, 2003: 93). For Indonesia in particular, with its dependence on low-skill, labour-intensive exports, China's increasingly dominant position as a supplier of textiles and garments is a matter of great concern. In recent years there has been a large and growing overlap between China's labour-intensive exports and the labour-intensive exports of southeast Asian countries, particularly Indonesia and Thailand, to the US market, the largest market for their manufactured exports for both China and southeast Asia.

Because of the large overlap in the US market between China's and Indonesia's manufactured exports, particularly in labour-intensive products such as garments, Indonesia is the southeast Asian country most exposed to the strong competition from China. Indonesia's garment industry is likely to lose market share in its export markets.

Analysis indicated that Indonesia's garment industry was losing its competitiveness long before the Asian economic crisis. Although the garment industry's unit labour costs (wage costs adjusted for labour productivity) appeared to remain competitive, the industry was not able to translate Indonesia's labour cost advantage into growing

penetration into export markets (Aswicahyono and Hill, 2004: 290; Aswicahyono, Atje and Thee, 2005).

With the phasing out of the MFA, trade in garments as of January 2005 was conducted under the rules of the WTO. This meant that Indonesia's garment industry would henceforth face strong competition in all its export markets, including in its former protected quota markets. A worrying development is that Indonesia's garment industry has in recent years also lost not less than 40 per cent of market share in Japan, the world's largest non-quota market (Aswicahyono and Hill, 2004: 292). In addition, with trade liberalisation in ASEAN markets, Indonesia's garment industry is also facing strong competition there from lower wage countries such as Vietnam and Cambodia.

Another problem facing Indonesia's garment industry is that in the global trading system, preferential trade agreements (PTAs) that liberalise trade among members, but discriminate against non-members, have been proliferating. Countries constituting the major export markets have been negotiating new PTAs that divert trade away from low-cost non-member countries, such as Indonesia (James, Ray and Minor, 2003: 93).

Unfortunately, Indonesia's ability to respond to these demand-side pressures are constrained by rising domestic transaction costs. Under the regional autonomy legislation introduced in January 2001, both textile and garment firms have been and are increasingly burdened with new taxes (often referred to as 'nuisance taxes' by businesspeople) imposed by regional governments, charges and other levies, as local governments look for ways to increase their revenues (James, Ray and Minor, 2003: 93-94). Although the central government has recently issued a decree that regional governments are now allowed to

impose only a limited number of taxes, the effectiveness of this decree has yet to be tested.

Moreover, under the new freedoms introduced after the fall of Soeharto, many new labour unions have been created, resulting in much more vocal and aggressive demands for higher wages, higher severance payments and better working conditions.

The government has also introduced costly dismissal procedures and social security regulations that have increased the cost of employing labour (Aswicahyono and Hill, 2004: 291).

The creation of many new labour unions and the new union-friendly Labour Law have led to many industrial disputes and lost working days. A recent effort by the government to revise the controversial Labour Law of 2003 has led to mass demonstrations, including during the 2006 May Day celebrations, when many workers left their jobs, causing billions of rupiah in losses to the plants.

**Table 4. Indonesia's Garment Exports, 1997-2003**

Year	Exports (US\$ million)
1997	4,181
1998	3,817
1999	3,777
2000	4,581
2001	4,134
2002	3,742
2003	3,944

Source: Bank Indonesia.

Despite the problems faced by the garment industry, garment exports after the Asian crisis have not declined from the years just before the crisis, but they have not experienced a steady growth either (Table 4).

Table 4 shows that the trend in post-crisis

garment exports has been quite uneven. Although post-crisis garment exports have exceeded pre-crisis exports, they have been uneven, sometimes rising and then declining. Talks with industry representatives indicate that they do not expect a substantial improvement in export performance.

---

## **Conclusion**

---

Despite the fears of some government officials, businesspeople and academic economists, even before the Asian economic crisis, that the garment industry is a 'sunset industry' with little prospect of future dynamic development, there is a strong case for strengthening and upgrading the industry. With more moderate rises in minimum wages accompanied by rising labour productivity that will restrain per unit labour costs, Indonesia still has a competitive advantage in labour-intensive industries like the garment industry. In view of the growing unemployment problem (more than 10 per cent of the labour force of 105 million is openly unemployed), it makes good economic sense to strengthen and upgrade labour-intensive industries.

Facing strong international competition in exports and domestically, Indonesia's garment industry should gradually move away from the lower end of the market, where international competition is fierce, and shift to up-market, high quality garments, including designer clothes and beach wear popular with tourists, as the Bali case has shown. To make this possible, the garment industry should send qualified staff to study design in, for instance, Hong Kong's well-known design institute.

Although the garment industry is generally regarded as a low-skill, labour-intensive industry, in the advanced countries, such as Japan and the US, it has during the past two decades experienced important technological developments. In Japan the Min-

istry of Economy, Trade, and Industry has introduced a flexible manufacturing system for fully automated garment production, in which labour input has been reduced to a tenth of its former level, while the lead time has been shortened through computerised control of design, cutting, patterning and sewing (Yamazawa, 1982: 7).

In the US, the most important technological development has been the application of microelectronics to garment production technology. The use of these microelectronics-based innovations, however, has been mainly limited to large firms (Hoffman, 1985: 376).

Although the equipment which embodies these technological developments is very expensive, the government may be able to assist garment firms, particularly the larger, better endowed firms, but also smaller firms grouped in cooperatives, to purchase this equipment, for instance by providing subsidised loans.

Since skills of workers in the garment industry are quite low, the industry could establish training centres to improve their skills, particularly in the operation and maintenance of high-tech equipment. This is training is very important since garment producers are being asked to use cutting-edge computer technology to provide designs and patterns to buyers (USAID and SENADA, 2006: 88).

Lastly, the government can help the manu-

facturing sector and the garment industry by improving the country's investment climate, which is generally rated as the worst in east Asia. By substantially simplifying the cumbersome and time-consuming licensing procedures, providing legal certainty and

clamping down on corruption, the government could do a great deal to help manufacturing firms reduce the high transaction costs that contribute to making the garment industry less competitive.

## References

- Aswicahyono, Haryo and Hal Hill. 2004. 'Survey of Recent Developments, *Bulletin of Indonesian Economic Studies*, Vol. 40, No. 3, December,' pp. 277-305.
- Aswicahyono, Haryo, Raymond Atje and Thee Kian Wie. 2005. *Indonesia's Industrial Competitiveness—A Study of the Garments, Auto Parts and Electronic Components Industries*. Report to the Development Economics Research Group. Jakarta: World Bank, March.
- BPS. 1990. *Indonesia's Foreign Trade Statistics—Exports 1989*, Vol. II. Jakarta: Badan Pusat Statistik, April.
- BPS. *The National Income of Indonesia*. Jakarta: successive issues.
- Cole, William. 1997. 'Bali's Garment Industry—An Indonesian Case of Successful Strategic Alliances'. Unpublished paper, Jakarta.
- Cole, William. 1998, 'Bali's garment export industry', in Hill and Thee (eds.), pp. 255-78.
- Ernst, Dieter; Tom Ganiatsos and Lynn Mytelka (eds.). 1998. *Technological Capabilities and Export Success in Asia*. London and New York: Routledge.
- HIID. 1995. 'Prospects for Manufactured Exports During Repelita VI'. Report submitted to the Department of Industry and Trade, Republic of Indonesia. Jakarta: Harvard Institute of International Development. .
- Hill, Hal. 1992. *Indonesia's Textile and Garment Industries—Developments in an Asian Perspective*. Singapore: ASEAN Economic Research Unit, Institute of Southeast Asian Studies.
- Hill, Hal and Thee Kian Wie (eds.). 1998. *Indonesia's Technological Challenge*. Canberra: Research School of Pacific and Asian Studies, Australian National University, and Singapore: Institute of Southeast Asian Studies.
- Hoffman, Kurt. 1985. 'Clothing, Chips and Competitive Advantage: The Impact of Microelectronics on Trade and Production in the Garment Industry', *World Development*, Vol. 13, No. 3.
- James, William E. 1995. 'Survey of Recent Developments', *Bulletin of Indonesian Economic Studies*, Vol. 31, No. 3, December, pp. 3-38.
- James, William E., David J. Ray and Peter J. Minor. 2003. 'Indonesia's Textiles and Apparel: The Challenges Ahead, *Bulletin of Indonesian Economic Studies*, Vol. 39, No. 1, April, pp. 93-103.
- Lall, Sanjaya and Kishore Rao. 1995. *Indonesia: Sustaining Manufactured Export Growth*. Report Submitted to the National Development Planning Board (Bappenas), Jakarta, August.

- Mihira, Norio and Sanjoto Sastromihardjo, (eds.),. 1991. *Indonesia's Non-Oil Exports—Performance and Prospects*. Tokyo: Institute of Developing Economies.
- Pangestu, Mari E.. 1997. 'The Indonesian Textile and Garment Industry: Structural Change and Competitive Challenges, in Pangestu and Sato (eds.), pp. 29-62.
- Pangestu, Mari E. and Yuri Sato (eds.). 1997. *Waves of Change in Indonesia's Manufacturing Industry*. Tokyo: Institute of Developing Economies.
- Thee, Kian Wie, 1991, *Technological Development and Its Implications for Indonesia's Garment Industry*. Paper presented at the Trade and Development Seminar, organised by the Economics Division, Research School of Pacific Studies, Australian National University, Canberra, 9 July.
- Thee, Kian Wie and Ahmad Hamid. 1997. *Perkembangan Industri Garmen di Bali sesudah tahun 1990* (The development of the garment industry in Bali after 1990). Paper presented at the Conference of the Association of Indonesian Economists (Ikatan Sarjana Ekonomi Indonesia), Malang, 19 December.
- Thee, Kian Wie, Ahmad Hamid, Sukarna Wiranta and Harry Sudarsono. 1989. *Employment Consequences of the Plywood and Textile Product Export Surge: Report of an ILO Study*. Jakarta: International Labour Organisation/United Nations Development Program.
- Thee, Kian Wie and Mari Pangestu. 1998. 'Technological capabilities and Indonesia's manufactured exports', in Ernst. *et al.* (eds.), pp. 211-65.
- USAID and SENADA. 2006. 'Indonesia's Competitive Environment—Current Conditions'. Jakarta, March.
- World Bank. 1994. *Indonesia—Industrial Policy-Shifting into High Gear*. Washington, DC.
- World Bank. 2003. *Comparative Study of Industrial Competitiveness in East Asia—A Research Proposal*, Washington, DC: Development Economics Research Group, January.
- Wymenga, P.S.J. 1988. *The Textile Industry in Indonesia*. Industry Planning Project, Centre for Data Processing and Analysis, Department of Industry.
- Wymenga, P.S.J. 1991a. 'The Textile and Garment Industry', in: P.S.J. Wymenga (ed.), 1991b, pp. 211-21. Wymenga, P.S.J. (ed.). 'Prospects of Industrial Development in Indonesia', Final Report of the Industry Analysis Project DTa-256, submitted to the Department of Industry, Jakarta, July.
- Wymenga, P.S.J. 1991c, *Prospects of Industrial Development in Indonesia*. Jakarta: Centre for Data Processing and Analysis, Department of Industry, and Netherlands Economic Institute, July.
- Yamazawa, Ipppei. 1982 'Renewal of the Textile Industry in Developed Countries and World Textile Trade'. RUEE Working Paper No. 82-6, July.

# Mauritius' Garment Industry in the New Situation

## Sawkut Rojid\*

Over the last 25 years Mauritius has experienced an impressive economic achievement that has improved and modernised the living standards of the citizens and opened a window to the world. Its outward-oriented strategies have transformed this small low-productivity agricultural island into a significant exporter of manufactures within a very short time. With a GNI per capita of Rs 140,856 (US\$ 5,030) in 2004, Mauritius is categorised as an upper-middle-income economy. The two sectors that have boosted manufacturing performance are sugar milling and clothing. However, the textile sector is now at stake, which means that new sectors or improvement of existing sectors will probably come into play. The textile and clothing sector appeared on the government's agenda for the first time in the Meade Report of the 1960s. James Meade conducted a study on the

Mauritian economy to find a way to diversify the sugar monoculture economy. Meade advocated the setting up of labour-intensive industries to avoid falling into the 'Malthusian trap'.

The clothing sector plays an important role in the economy in terms of employment, foreign exchange earnings and share of GDP. In 2003, around 65,000 people—more than 60 per cent of the manufacturing labour force—were engaged in the Mauritian clothing sector. It accounted for 22.4 per cent of GDP in 2002. In 2001 wearing apparel accounted for 56 per cent of Mauritius' total exports of goods and around 82 per cent of manufactured exports. Table 1 shows the evolution of the number of firms in the textile and clothing sector and the evolution of employment over the same period.

Date		March 2000	March 2001	March 2002	March 2003	June 2004	June 2005
Textile firms		65	62	59	57	43	41
Clothing firms		355	341	328	313	222	219
Textile Employees	Male					2,785	2,836
	Female					1,564	1,429
	<b>Total</b>	9,210	8,180	7,995	7,784	4,349	4,265
Clothing Employees	Male					17,932	18,049
	Female					37,100	33,676
	<b>Total</b>	72,810	75,766	69,982	68,344	55,032	51,725
Source: CSO data.							

\* The writer is an economic consultant and researcher.

As can be seen from Table 1, the number of firms and the number of employees have been decreasing throughout the period. From March 2000 to June 2005, the number

of textile and wearing apparel firms fell from 420 to 260, and the number of employees in that sector fell from 82,020 to 55,990.

### **Concentration of Firms**

---

The bulk of activities in the textile and clothing sector of Mauritius are geared towards the manufacture of ready-made garments (94 per cent of total textile and clothing exports in 2004). In 2004, there were 224 firms in the ready-made garments sector, along with four spinning firms and three weaving firms. Within the ready-made garment sector, the product base is fairly narrow, with only four main products produced. These four products accounted for 91 per cent of clothing exported in 2004: T-shirts (43 per cent), pullovers (19 per cent), shirts (12 per cent) and trousers (18 per cent).

The quality component of different product lines is shown in Table 2. The more that production falls into intermediate and ba-

sic categories, the greater the competition that Mauritius faces from countries like China and India, which produce basic in bulk. Aside from shirts, around 80 per cent of production is intermediate and basic. One strategic approach to survival in the wearing apparel market is to move up-market into high end high value added products, where price competition is less severe and the products are in short supply.

Since the beginning of the 1990s, exports of Mauritian clothing have been mainly directed towards three markets, which account for more than 80 per cent of total clothing exports. The shares of these three markets in 2004 were: USA 29.3 per cent, UK 28.4 per cent and France 24.1 per cent.

### **Problems Faced by the Industry**

---

The textile and clothing sector can be regarded as having gone through two phases. The first was during the 1970s, when the export processing zone started. During these years the very first textile and clothing firms began operating in Mauritius. However, the growth in number of firms and job creation became stagnant very quickly. The second phase started with the boom in the textile sector in 1983. During the 1980s and early 1990s, textile and clothing firms mushroomed all over the island. Foreign investors were attracted to Mauritius because of a pool of cheap educated labour and the investment-friendly environment set up by the government. Firms in the textile and clothing sector rose from 74 in 1983 to 435 in 1988. However, in the 1990s, due to full employment, wage rates in the textile and clothing sector began to increase and labour

had to be imported to increase production. Firms started complaining that high wages were rendering their exports uncompetitive.

From January 2005, the sector entered a third phase due to changing world trading conditions. Firms now have to be even more competitive in the international market. The effect of MFA phase-out was felt even before January 2005, because some importers had already shifted their imports (especially basics) towards lower cost producers. The value of Mauritius' garments exports decreased by around 10 per cent in 2003 compared to the previous year.

Jhamna M. (2000) conducted a survey of the clothing sector of Mauritius. He ranked the problems that its garment manufacturers faced. In order, they were: rising wages;

**Table 2. Quality Component of Different Product Lines, in % (2004)**

Apparel	Knitwear (Pullover)	Light Knits (T-Shirts)	Bottoms	Shirts
Up-market	20	20	20	65
Intermediate	80	20	80	35
Basic		60		

Source: JEC/ Mauritius Export Processing Zone Association.

limited pool of labour; potential loss of markets; adapting to technological change; low productivity.

The survey also asked about the relocation policy of firms. Factors attracting firms to new locations were ranked in the following order: low wages; investment incentives; government support; good infrastructure; political stability; skilled workers.

This made it clear that high wages were the main factor causing firms to relocate from Mauritius to countries like Madagascar and Mozambique. In 2002, firms were facing a limited pool of skilled labour, but today there exists a pool of around 20,000 workers who were laid off from the textile and clothing sector and are looking for jobs.

Samson Muradzikwa (2001) studied the southern African regional clothing and textile industry, comparing Mauritius, Malawi and Zimbabwe in his study. He presented the hourly labour costs for a number of countries (Table 3). In terms of labour costs,

**Table 3. Costs of Unskilled Textile Labour, 1997**

Region	Country	Cost (\$/hr)
OECD	Germany	25
	UK	13
	USA	14
Non-OECD Europe	Hungary	2.4
	Turkey	2
Asia	China	0.55
	India	0.65
South African Development Community	Malawi	0.52
	Mauritius	0.95
	South Africa	2.35
	Zambia	0.95
	Zimbabwe	0.5

Source: adapted from Samson Muradzikwa (2001).

clearly Zimbabwe has advantages over its counterparts in both the SADC and other regions.

### Spurs for Garment Manufacturing

As stated, during the 1980s and 1990s, foreign investors were attracted to Mauritius by a pool of educated unemployed labour at

low wages and the investment-friendly environment set up by the government. Several international factors also contributed.

### Conducive Environment for Investment

Since the 1970s, the government has implemented policies that have provided a

conducive environment to the private sector. Export promotion began with the en-



actment of the Export Processing Zone Act in 1970. The EPZ was launched in 1971. The act provided incentives and concessions, including a 10-year tax holiday.

As part of liberalising the economy, the government successfully implemented five successive stand-by arrangements and two structural adjustment programmes between 1980 and 1986, which put in place the pre-conditions of sustainable export-led growth.

In 1983, the government established the Mauritius Export Development and Investment Authority (MEDIA, now MIDA) to undertake investment missions and export

promotions to boost foreign investors and export value. The devaluation of the rupee, creating a realistic exchange rate, helped to make exports competitive. The rupee was devalued by 30 per cent in 1979, followed by a further 20 per cent in 1981.

During the 1980s Mauritius had a pool of semi-educated inexpensive labour. Although the majority of the available workers were unskilled, they were very versatile and adapted themselves easily to working conditions in the textile sector. Investors, mainly from abroad, took advantage of this readily available labour force by setting up textile and clothing firms.

---

### **Exogenous Factors**

---

The success of the sector is partly attributable to factors outside the control of Mauritian authorities.

The textile and garment exports of low-cost countries, especially in Asia, declined under the MFA restrictions during the 1980s. Thus Mauritius did not have to face tough competition in its exports to the USA. Owing to the third Multi-Fibre Agreement signed in 1982, several countries faced serious constraints on their exports. It was in this context that investors from Hong Kong came to set up in Mauritius. This policy of relocation helped them in exporting to the EEC quota free and to take advantage of unexploited quotas to the USA.

Mauritius' foreign exchange problem was eased by a combination of lower oil prices

and a lower debt servicing burden, arising from the depreciation of the overvalued US dollar in 1984. During the same period, Taiwanese investors set up industries in Mauritius because of an appreciation of the Taiwanese dollar and thereby a fall in Taiwan's competitiveness on the world market.

After 1984, demand in European and US markets increased sharply, particularly with the appreciation of European currencies in relation to the rupee, causing Mauritian goods to become more competitive.

During the 1990s, political uncertainty over the future of Hong Kong's reintegration into China encouraged investors to look for a safe haven, and some relocated to Mauritius, bringing capital, marketing networks and technological know-how.

---

### **Preferential Trading Arrangements**

---

Favourable terms of trade combined with ready market access to developed countries attracted foreign investors to set up textile and garments firms in Mauritius. Both domestic and foreign investors have exploited the preferential market access granted by developed countries, mainly the

EU and the US, under the Lomé Convention and the GSP (now AGOA).

The Lomé Convention, signed in 1975, was replaced by the Benin/Cotonou Convention in 2000 for a period of eight years. Under this agreement, African, Caribbean and Pa-

cific (ACP) countries gained duty-free and quota-free access to EEC countries. This bestowed considerable advantages on Mauritius because non-ACP countries' exports are liable to a 17 per cent duty.

The US Africa Growth and Opportunity

### Third Phase

However, in the third phase, which began in January 2005, firms have to be even more internationally competitive. Mauritian policy makers have proposed several incentive schemes to counter the negative effects of the MFA phase-out on employment and growth. Most of the incentives and policies of the government are aimed at increasing the competitiveness of all manufacturing firms, not just textile and clothing firms.

Enterprise Mauritius was incorporated on 22 October 2004 under the Companies Act 2001 as a public company. Its primary purpose is to provide seamless and responsive services to enterprises within an integrated framework in order to enhance their competitiveness. The establishment board developed the core strategy and defined the main objectives of Enterprise Mauritius as follows:

- to act as a technology watch and a focal point for technology diffusion;
- to provide market information, develop competitive intelligence and cater for export promotion;
- to identify, track and coordinate skills needs and trends;
- to facilitate strategic partnership and networking;
- to provide advisory services on enterprise development;
- to provide consultancy services;
- to carry out other activities conducive to the attainment of the above objects.

Some recent initiatives are described below.

**Small and Medium Enterprise Scheme.** This scheme aims at promoting the devel-

Act (AGOA), enacted on 23 May 2000, provided qualifying sub-Saharan countries with duty-free access to the US market for a period ending in September 2008. The act offers potentially vast benefits for qualifying African countries, while setting stringent and thorough qualifying conditions.

opment of SMEs and at integrating them into the industrial landscape. It applies to enterprises whose production equipment does not exceed Rs 10 million in value. Under this scheme, the incentives given to the manufacturing firms are: no customs duty on production equipment; 15 per cent corporate tax; concessionary loan schemes; SME industrial estates equipped with IT facilities.

**Export Enterprise Scheme.** An Export Enterprise Certificate is granted to enterprises that export their entire production, although authorisation to sell a small portion (10-20 per cent) on the local market may be obtained, depending on the nature of the activity. Incentives given to firms that qualify for the scheme are: duty-free import of raw materials and equipment; corporate tax of 15 per cent; no capital gains tax; free repatriation of profits, dividends and capital; 60 per cent remission of customs duties on buses of 15-25 seats used for the transport of workers; concessionary registration fee on purchase of land and buildings by new industrial enterprises.

**Strategic Local Enterprise Scheme.** This scheme is intended for local manufacturing enterprises that contribute to the economic, industrial and technological development of the country. Incentives under this scheme are a 15 per cent corporate tax and no tax on dividends.

**Modernisation and Expansion Scheme.** This scheme aims to accelerate the modernisation, expansion and diversification of exist-

ing manufacturing enterprises by encouraging them to invest in modern equipment, computerisation and pollution control technology. The incentives are: no customs duty on production equipment; an income tax credit of 10 per cent (spread over three years) for investment in new plant and machinery, provided at least Rs 10 million are spent within two years of the date of issue of the certificate; this is in addition to existing capital allowances, which amount to 125 per cent of capital expenditures; an additional allowance of 30 per cent over the normal initial allowance of 50 per cent on investment made on anti-pollution machinery or plant.

Industrial and commercial institutions are playing an important role in the development of a number of industries, including textiles and clothing. Some of these institutions and their roles are described below.

The Mauritius Industrial Export Development Authority (MIDA) has the responsibility for export promotion and the construction of industrial buildings. It also provides market intelligence through the Trade Information Centre, helps to organise the Mauritius International Clothing and Textile Exhibition and has several overseas offices to promote exports.

There has been a new wing created at the Board of Investment, called the Investment Promotion Department. It helps potential investors and existing industrialists to identify investment opportunities, joint-venture partners, land and factory buildings and to obtain the various clearances required prior to start-up.

The Mauritius Chamber of Commerce and Industry is the leading private-sector organisation involved in the promotion of trade, industry and tourism. It is also a privileged spokesperson of the private sector vis-à-vis the government and other bodies. The chamber provides services mainly related to procedures for customs, imports and exports

and is an efficient provider of information about import and export markets.

The Mauritius Export Processing Zone Association is also a private sector institution. Its role is to sustain, promote and develop export activities and quality awareness, to organise workshops and to run training programmes for its members. The association has about 130 members.

The mission of the Export Processing Zones Development Authority (EPZDA) is to provide support to existing enterprises to enable them to reach international standards of competitiveness. This institution provides services such as technical assistance, training, documentation and consultancy to enterprises to enable the export-oriented sectors of the economy to acquire the technical and managerial skills needed for the transition of the country from a labour-abundant to a skills-abundant nation.

The Small and Medium Industries Development Organisation was set up to help to develop SMEs. It is a facilitator and adviser to SMEs in all sectors, including textiles and clothing, and provides various schemes and grants to help to modernise SMEs.

A report by the Ministry of Manpower Resources and Vocational and Technical Training in 1994 emphasised the importance of technical know-how and highlighted the low educational level of the textile and clothing operatives, who, for the most part, had come from the sugar industry. The main recommendation of the report was a strategy of shifting the textile and clothing sector toward less labour-intensive, more high-tech production methods, methods that would succeed, however, only if the labour force could adjust. The report focused on the need to learn some skills and upgrade others.

Lall and Wignaraja (1998), studying the export competitiveness of the economy, argued that Mauritius is exceptionally vul-

nerable because, not only is it heavily dependent on a few products, but also because more than 80 per cent of its manufactured exports come from one product group—clothing. Within the clothing sector, they argued, once exporters' wage cost advantage is exhausted, export growth will depend upon the ability to add value by backward integration (into textiles) and, within clothing, to upgrade quality and flexibility. And to improve the quality of garments, investment is required not only in equipment, but also in organisational and labour skills and quality management, design, marketing and response capabilities.

A survey prepared for the Industrial and Vocational Training Board in 1997 identified most of the shortcomings in skills and training and recommended more active participation by the board in the human-resources development for the sector (CITA 1997). It also suggested what the board should do to improve labour productivity. The board now coordinates a network of vocational training institutes and cooperates with major international institutes to ensure training in the most modern and sophisticated technologies. It also offers a Higher National Diploma in fashion and design. There are a number of other institutions which offer courses related to the textile and clothing industries.

The Clothing Technology Centre, the technical arm of the EPZDA, utilises experts in textile and clothing from Mauritius or abroad to teach a variety of courses year round, for example: industrial pattern making, circular knitting, optimal sewing methods, screen printing and line management.

The Textile Technology Department of the University of Mauritius also offers a B.Sc. degrees in textile technology and textile fashion and design. The Manchester Metropolitan University offers a Higher National Diploma/B.Sc. in clothing production management in collaboration with the Profes-

sor Basdeo Bissoondoyal College.

At least five training institutions are registered with the Industrial and Vocational Training Board to cater for training needs in textiles and clothing, while the tertiary education sector caters for middle management positions in design and production of textiles and clothing.

The National Productivity and Competitiveness Council carried out an analysis of the textile and clothing sector in October 2003. Its objective was to formulate a corporate diagnosis of individual companies, using performance benchmarks, to identify their strengths and weaknesses in areas such as management, organisation of production, finance and marketing. The study used the Ramsey Productivity Models, a tool for measuring the contribution of each unit of input to final output.

The assessment of the productivity indicators and meetings with enterprises confirmed that the majority of textile and garment enterprises were performing poorly and having difficulties, to varying degrees, in these main areas:

- materials utilisation and procurement;
- productivity planning and budgeting;
- human resource management;
- financial management;
- inventory management;
- technology enhancement;
- international marketing;
- competitive pricing.

Further discussions with enterprises revealed a number of financial issues affecting enterprise reactivity and performance, namely: excessive delays in loan processing from banks, collateral requirements for loans and high interest on loans, overdrafts and penalty costs.

Some enterprises have developed innovative approaches to address some of the constraints confronting them. For example,

seven companies are pooling to reduce freight costs. Other enterprises are:

- reducing interest on loans by borrowing in foreign exchange;
- implementing lean manufacturing or restructuring to improve enterprise productivity;
- improving lead times through restructuring, reducing unnecessary delays and reducing reliance on air freight;
- expressing interest in sharing orders with other enterprises due to low capacity.

Similar positive experiences have to be shared, multiplied and supported throughout the industry. They represent opportunities for improvement that can be tapped with little or no significant monetary investment by enterprises.

### ***Labour Markets***

---

The labour force in Mauritius is now more educated, skilled and expensive to hire. It is important to note that although the wage rate has increased, so has the productivity of labour.

Hourly labour costs grew at an average compounded rate of 4.4 per cent per annum over the period 1990 to 2000. This has led to an erosion of competitiveness over time.

Not only has there been an increase in the wage level over the years, but also the wage level for Mauritius has become much higher than in some Asian countries. Mauritius has an hourly labour more than double that

The main industry indicators show that, on average, SMEs have been investing more than bigger companies, SMEs have been slightly more productive, and SMEs on the whole have higher capital productivity.

The Total Productivity Measure<sup>1</sup> for the industry in 2002 was 0.9706, a decline from 1.0119 in 2001. This was due to input costs rising faster than output. This would tend to show that the clothing industry in aggregate is not productive. However, a breakdown of the indicators reveals that performance is uneven from one enterprise to another, from one product group to another and from one size to another. The industry is not homogeneous, and this makes it risky to prescribe across-the-board solutions.

of India and China and a productivity level below those countries. Tagg (2002) considered labour productivity in terms of pieces per operator per day and noted the following results: 18 in Mauritius, 18.2 in Taiwan, 19.8 in Thailand and 20 in China.

Therefore the Mauritian apparel industry faces a very serious difficulty: its productivity is lower than its competitors' while unit labour costs are higher. Although unit labour cost is not the only cost factor, we stress it because the production of wearing apparel is highly labour intensive and labour costs are a significant share in total production costs.

### ***Long-Term Growth and Structural Change***

---

The conditions mentioned above as the basis for the successful Mauritian textile and clothing sector are no longer the same. Although the policies implemented by the government still act as incentives for the pri-

vate sector, there are changes in the exogenous and some of the endogenous factors.

Although countries are no longer restricted by quotas on their textile and clothing ex-

1. This shows the amount of output generated by each rupee spent. If the measure is less than 1, it means that losses are being made—the enterprise or industry is not using effectively its inputs and factors of production.

ports, Mauritian exporters still benefit from preferential tariff rates. On the US market, Mauritius still has duty-free access under the AGOA. This implies a tariff preference of 17 to 18 per cent compared to some textile and wearing apparel exporters, such as China. The AGOA will, however, phase out in 2008. Until then, the immediate competitors for Mauritian clothing exports in the US market are countries that equally benefit from the AGOA or any other type of preferential treatment on duties, such as under the Caribbean Basin Trade and Partnership Act or Mexico under NAFTA.

On the EU market, Mauritius will continue to benefit from duty-free access under the Cotonou Agreement until 2008, followed by a 12-year transition period of liberalisation. This implies a tariff margin of around 12 per cent (the EU most favoured nation tariff rate on clothing). The EU has such an array of preferential agreements in one form or another that only 10 countries worldwide are subject to the full MFN treatment. Like Mauritius, other ACP countries are signatory of the Lomé/Cotonou Convention and therefore have duty-free access for their exports to the EU. The 'Everything but Arms' initiative provides tariff- and quota-free access to the EU for almost all products from least developed countries. The recent enlargement of the EU hinders Mauritian clothing exports to the EU because more countries can trade freely within the group.

After the phasing out of the Cotonou and AGOA preferences in 2008, Mauritius will most probably cease to benefit from a tariff preference margin in both the EU and the USA. Some other countries currently benefiting from these arrangements will also suffer. But other countries currently benefiting from other preferences in these two markets will continue to benefit from those preference even after 2008 (e.g. Mexico will continue to be in NAFTA), and Mauritius will therefore have to be much more competitive then.

We believe that skilled labour should be regarded as an asset that needs to be protected in the search for improved competitiveness. Mauritius is working towards positioning itself to remain an important supplier of quality products. Competing with giants like China and India in lower end products is out of the question. Mauritius should take the opportunity to find a place as a niche producer in the fashion market and in other segments of the industry where the use of technology is intensive. Advanced technology-based production complemented by an educated and skilled labour force should open a window for successful production and export of high end products. The Mauritius Export Processing Zone Association has identified four principles on which the Mauritian textile and clothing firms' production should be based. They are:

- producing the right product
- at the right price
- at the right time
- under the right conditions.

Producing the right products calls for training and multi-skilling the existing labour force and the development of quality awareness among both producers and employees. At national level, the government recently initiated a 'training scheme for unemployed job seekers'. This was indeed an excellent initiative. However, some improvements are needed to better meet the current needs of the market. The scheme should be more detailed so that labour can be trained in each and every task involved in the production process. If necessary, we should import the services of highly skilled labour to train our labour force.

Although the labour cost in Mauritius is quite high compared to developing countries, when compared to countries producing high value products, it seems low. Therefore producing at the right price does not necessarily mean at the lowest price (with the lowest wages). Strategies should be developed to reduce lead time,

to use technologically advanced methods of production, to reduce the cost of keeping stock volumes. Currently in Mauritius, many firms are revisiting their market strategies in the light of changing worldwide textile consumption patterns, modifying production structures towards more integration and larger units to benefit from economies of scale and to cope with a more concentrated demand. They can thus upgrade their technology and enter the higher value added market segments. Some initiatives that should be taken to help clothing firms to restructure and adapt to the current market needs are:

Organise awareness campaigns so that producers are aware of the opportunities open to them, for example exports under the AGOA.

Continuously search for potential markets and potential clients, to provide market information, establish links with agents in the value chain, develop competitive intelligence and cater for export promotion.

Provide training facilities to retrain and to

multi-skill workers in the sector.

Set up schools of design so that creative designers and stylists are available in the market whenever needed. They would provide the necessary impetus in going up-market and to create a niche market for a Mauritian brand.

Set up training schools so that firms do not face the problem of finding skilled workers on the market.

Provide financial support at low cost to firms so that they can reorganise their plants, modernise and equip them with technologically advanced production techniques.

Commission studies at different levels and in different fields to understand the needs of the producers and their worries and then take action accordingly.

Commission clustering and benchmarking exercises on a large scale on a continuous basis. Benchmarking should be based not only on past performances but also vis-à-vis other firms in the industry.

## References

- CITA (Clothing Industry Training Authority). 1997. *Final report on the training needs for the textile sector*. Report prepared for the Industrial and Vocational Training Board.
- Jahmna M. 2000. *Restructuring the clothing industry in the light of new trade agreements*.
- Lall and Wignaraja. 1998. *Mauritius: Dynamising Exports Competitiveness*.
- Muradzikwa Samson. 2001. *The Southern African Regional Clothing and Textile Industry: Case Studies of Malawi, Mauritius and Zimbabwe*.
- Tagg, S. 2002. *Transaction Costs and Clothing and Textile Trade in SADC*. DPRU Working Papers, University of Cape Town, no 02/64.

# Ready-Made Garment Exports: The Case of Sri Lanka

**Saman Kelegama\***

The textile and clothing (T&C) industry of Sri Lanka has risen from modest beginnings in the 1950s to become the country's largest industrial sector, demonstrating tremendous growth over the last three decades. The industry now constitutes a vital component of the economy, accounting for 58 per cent of industrial export earnings and nearly 50 per cent of total export revenue (CBSL, 2005).

Ready-made garments (RMG) amount to more than 90 per cent of all T&C exports of Sri Lanka. The RMG sector has established a prestigious customer base, manufacturing clothing for a wide range of internationally reputed brand names including Abercrombie and Fitch, GAP, Liz Claiborne, Marks and Spencer, Nike, Pierre Cardin, Ralph Lauren, Tommy Hilfiger and Victoria's Secret.

Heavy reliance on the RMG industry for growth and development makes Sri Lanka vulnerable to global economic shifts and policy changes. In particular, the expiry of the Multi-Fibre Arrangement (MFA) in December 2004 brought an end to the quota-based system of T&C exports, which was a driving force behind the RMG sector's phenomenal growth. The industry is now no longer protected under a system that assures market access, in particular, to developed country markets. In the new quota-free world, low-cost RMG manufacturers with economies of scale, such as China and India—who were the main losers under the MFA—are expected to increase greatly their global market share to

the detriment of smaller, less competitive countries that thrived under the quota system. Sri Lanka faces a number of challenges, and the future of the country's garment industry will depend very much on the manner and speed with which the government and industry leaders face these challenges.

In 2004, textiles and clothing contributed 48.8 per cent of the total value of exports, bringing in US\$2.808 billion in export revenue (CBSL, 2005). The industry accounted for approximately 6 per cent of GDP, 6 per cent of the labour force and nearly 40 per cent of the value of industrial production. In 2003, it reported 830 garment firms employed a total of 340,367 workers. Around 87 per cent of RMG industry workers are female. More than 70 per cent of RMG factories are concentrated in Western Province due to better infrastructure and close proximity to seaport and airport facilities, and around 65 per cent of total RMG employment has been generated in the region. Around 1.2 million people—6 per cent of the total population—depend on the RMG industry for their livelihood (Kelegama, 2005).

The RMG sector displayed immense and consistent growth after market liberalisation policies were implemented in Sri Lanka in 1977. Prior to that, when both imports and exports were highly restricted, RMG were manufactured by a few domestic companies mostly for the domestic market, while textiles were essentially a state-controlled import-substitution industry that provided fabric inputs for domestic RMG

\* Executive Director of the Institute of Policy Studies (IPS), Sri Lanka.



firms. In 1977, textiles and garments accounted for just 2 per cent of exports; by 1990, they accounted for 33 per cent (CBSL, various issues). In 2004, Sri Lanka was among the top 20 exporters of RMG in the world.

The MFA was one of the main drivers of this growth, allowing the industry to benefit from 'quota hopping' investments from foreign firms that relocated their operations in Sri Lanka. Underutilised quotas also provided room for domestic entrepreneurs to enter the industry. With the quota system in place, Sri Lanka was able to export heavily to two specific markets, the United States and the European Union. In 2004, 63 per cent of RMG exports went to the US and 30 per cent to the EU. Sri Lanka's quota dependence gradually declined during the decade prior to the MFA phase-out, in particular when quota-free entry to the EU was granted in March 2001. In 2004, 55 per cent of overall RMG exports were quota dependent.

The industry has been hampered by a number of problems since the MFA years, and these need to be addressed if Sri Lanka is to prosper in the new quota-free world.

The main issues are weak backward integration, high turn-around time, low productivity and rising production costs. The RMG sector has less unionised labour than most other industries; while this feature is attractive to investors, it also contributes to low worker productivity and high labour turnover. Furthermore, producers have limited direct contact with leading global buyers; around 65 per cent of RMG are exported via intermediary buying offices based in Sri Lanka, the disadvantage being that many foreign buyers and investors are simply unaware of Sri Lanka's potential (Kelegama and Wijayasiri, 2004).

In 2004, the MFA's impending termination produced fear of the unknown like that of the Y2K scare in 1999. Two opposing views emerged on the future of the industry. Pessimists stated that the RMG sector in quota-dependent countries would be severely affected by those who would gain from the lifting of restrictions, namely China and India. Optimists stated that the preparations made by most developing countries like Sri Lanka with a large RMG sector would considerably alleviate the perceived adverse impacts of the post-MFA scenario.

### ***The Asia-Pacific Region***

---

The T&C sector in Asia as a whole relies mostly on the US and the EU as its chief export markets. Asia's share of US and EU imports of T&C currently exceeds 50 per cent (Tables 1 and 2). In the transition from MFA to post-MFA, China has been by far the best performer, while India ranks a distant second. Sri Lanka has been a moderate performer along with Bangladesh, Cambodia, Indonesia, Lao PDR, Pakistan, the Philippines, Thailand and Vietnam.

Those who have made gains during the transition period have done so mainly at

the expense of the least competitive countries. Fiji, the Maldives, Mongolia and Nepal in particular have undergone a considerable reduction in their T&C exports to the US and the EU. However, even in countries that enjoyed reasonably good T&C export growth in 2005, factory closures are taking place with job losses due to structural transformations. Indonesia and Sri Lanka are two examples.

Continued restrictions on Chinese exports until 2015 provide some room for less competitive economies to restructure their T&C industries and enhance their com-

**Table 1: Share in US Imports of Textiles and Clothing Products**

COUNTRY	Value (in US Dollars)				Volume (in Kg)			
	2004	Share (%)	2005	Share (%)	2004	Share (%)	2005	Share (%)
World	86,703,574,513	100.0	92,595,008,829	100.0	8,379,096,655	100.0	9,020,184,005	100.0
Asian 12	35,842,500,378	41.3	46,076,508,473	49.8	3,507,528,123	41.9	4,531,754,252	50.2
Bangladesh	1,986,278,092	2.3	2,380,338,481	2.6	207,592,977	2.5	246,341,074	2.7
Cambodia	1,430,845,435	1.7	1,716,164,278	1.9	100,643,769	1.2	121,394,196	1.3
China	14,948,475,902	17.2	22,445,457,572	24.2	1,481,598,519	17.7	2,261,262,627	25.1
India	3,946,295,462	4.6	4,973,698,565	5.4	445,821,124	5.3	534,071,477	5.9
Indonesia	2,601,591,795	3.0	3,092,156,615	3.3	203,916,936	2.4	242,768,172	2.7
Lao PDR	2,111,546	0.0	2,835,538	0.0	108,097	0.0	104,796	0.0
Nepal	132,562,616	0.2	98,419,930	0.1	11,308,304	0.1	6,636,181	0.1
Pakistan	2,550,600,899	2.9	2,887,926,037	3.1	454,074,560	5.4	529,550,166	5.9
Philippines	1,862,742,400	2.1	1,881,837,179	2.0	117,464,365	1.4	114,803,261	1.3
Sri Lanka	1,600,621,722	1.8	1,694,485,494	1.8	110,042,781	1.3	106,099,394	1.2
Thailand	2,207,135,414	2.5	2,178,466,918	2.4	189,208,133	2.3	183,625,112	2.0
Vietnam	2,573,239,095	3.0	2,724,721,866	2.9	185,748,558	2.2	185,097,796	2.1
CBI+Mexico	18,685,973,634	21.6	17,775,857,225	19.2	1,860,695,925	22.2	1,788,384,461	19.8
CBI	10,159,533,783	11.7	9,807,669,616	10.6	905,846,336	10.8	917,791,328	10.2
Mexico	8,526,439,851	9.8	7,968,187,609	8.6	954,849,589	11.4	870,593,133	9.7
AGOA <sup>1</sup>	1,792,857,822	2.1	1,497,104,080	1.6	141,172,614	1.7	119,707,942	1.3
ROW	30,382,242,679	35.0	27,245,539,051	29.4	2,869,699,993	34.2	2,580,337,350	28.6
Fiji	85,784,377	0.1	19,160,233	0.0	6,040,927	0.1	1,263,323	0.0
Maldives	81,052,067	0.1	4,719,927	0.0	1,602,790	0.0	73,336	0.0
Mongolia	229,045,134	0.3	134,785,069	0.1	14,567,065	0.2	10,112,154	0.1

Notes: 1. 37 African countries that are eligible for AGOA (African Growth and Opportunity Act) benefits. ROW=Rest of the World.

Source: USITC (United States International Trade Commission) Interactive Tariff and Trade Data Web, <http://dataweb.usitc.gov/>, reproduced in UNDP (2006).

petitiveness. China will be subjected to safeguards and anti-dumping legislation from 2005 to 2008, and then to anti-dumping regulation only from 2009 to 2015. After 2015, China will no longer be a “non-market economy” and will be an equal player in the field. Hence, China’s competitors have until December 2008 to overhaul their T&C sectors or they are likely to face hard times. According to some forecasts by the World Bank, China’s global share of RMG exports is expected to rise dramatically, from 20 per cent to 50 per cent by 2010, while the share of other Asian countries is expected to decline from 32 per cent to 20 per cent. If this is the case, Sri Lanka will be in the difficult position of grappling for an increasingly shrinking share of the global T&C industry.

**Table 2: Share in EU Imports of Textiles and Clothing Products**

	Value		Volume	
	2004	2005	2004	2005
Asian 12	47.2	53.2	56.2	61.4
Bangladesh	5.6	5.0	6.6	6.1
Cambodia	0.7	0.6	0.5	0.4
China	23.0	30.7	26.0	33.4
India	6.8	7.5	9.0	8.8
Indonesia	2.6	2.2	3.4	3.0
Lao PDR	n/a	n/a	n/a	n/a
Nepal	0.1	0.1	0.1	0.1
Pakistan	3.6	3.0	6.0	5.3
Philippines	0.5	0.3	0.4	0.3
Sri Lanka	1.3	1.1	0.9	0.8
Thailand	1.9	1.6	2.2	2.2
Viet Nam	1.1	1.1	1.1	1.0
ROW	52.8	46.8	43.8	38.6
World	100.0	100.0	100.0	100.0

Source: Asian Development Bank (2006), reproduced in UNDP (2006).

## Sri Lanka's Current Situation

Comparing Sri Lanka's performances in 2004 and 2005 (i.e., MFA and post-MFA) reveals that despite the termination of quotas, T&C exports grew 3.4 per cent in value (UNDP, 2006). In 2005, T&C exports amounted to US\$2.894 billion, or 45.6 per cent of total export revenue, making a 14.5 per cent contribution to overall export growth between 2004 and 2005 (CBSL, 2005).

However, the *volume* of exports to both the US and the EU declined in 2005, while the *value* of exports to the EU market declined. This decline is reflected in a gradual shrinking of the domestic RMG sector, from 830 factories in 2003 to 733 factories in 2005, a decrease of 11.7 per cent (UNDP, 2006). This may be partly due to structural changes within the industry, the number of small

firms shrinking while the large firms survive (Ceylon Chamber of Commerce, 2006, cited in UNDP, 2006). Although some small firms shut down, several may have been acquired by, or merged with, larger firms.

Nevertheless, the number of workers directly employed in the RMG industry has dropped sharply, from 340,367 in 2003 to 273,600 in 2005, a decline of nearly one-fifth (UNDP, 2006). Most displacements occurred in the small and medium industries in which 130,000 of the total 2003 workforce were employed. Of the factories that closed down in 2005, many did so without adequate notice and most did not pay any form of compensation to their workers (Oxfam, 2005, cited in UNDP, 2006).

### Strengths

Despite the negative picture painted by the above statistics, Sri Lanka's RMG sector has some distinct competitive advantages over some of its rivals. The share of the top five products (all RMG) in overall T&C exports is lower than that of most other Asia-Pacific countries that have limited capacity in textile production; for example, Sri Lanka's top five export items account for 33 per cent of T&C exports, while Nepal's account for 76 per cent (UNDP, 2006). Hence, Sri Lanka has an advantage in not being overly reliant on a few specific product types.

Sri Lanka has made a conscious effort to specialise in high value-added RMG or 'niche' products, namely women's underwear, in which the country has a comparative advantage. These products have shown exceptional export growth. From January-September 2004 to January-September 2005, exports of HS 610821 (women's or girls' cotton briefs and panties) to the US

increased by 909.9 per cent, while exports of HS 621210 (brassieres) to the US grew by 38.9 per cent (UNDP, 2005). Total exports of HS 621210 rose by 18 per cent in 2005, accounting for more than 11 per cent of T&C exports (UNDP, 2006). At present, Sri Lanka is in a favourable position to advance further in this particular niche market because the country possesses a better educated and skilled labour force than many other Asian economies (UNDP, 2006).

One of Sri Lanka's biggest competitive strengths is that it has already established itself as a reliable manufacturer of quality garments with competitive pricing and appropriate capabilities. Compliance with international labour and environmental standards has further benefited the country as an increasing number of buyers demand that standards of health, labour, environment and occupational safety be met by manufacturing countries. In February

2004, under the Generalised System of Preferences (GSP), the EU granted Sri Lanka a 20 per cent duty concession for its compliance with international labour standards; this was in addition to an earlier 20 per cent duty concession granted under the GSP's General Arrangement. Moldova is the only other country that has achieved GSP concessions for labour standards.

Sri Lanka has the opportunity to enhance its competitive strengths by exploiting its geographic proximity to India. India, along

with China, will become a dominant player in the T&C trade, enjoying an increasing demand for its RMG manufactures. Sri Lanka could benefit from the spill-over effects of this increased demand. Furthermore, Sri Lankan textile producers that operate in India, such as Brandix Lanka, could achieve economies of scale by producing fabric inputs for both Sri Lankan and Indian garment manufacturers. Currently, companies operating in Sri Lanka face the constraints of a relatively more costly small-scale production.

### **Weaknesses**

One distinct weakness is the lack of accessory industries for RMG—such as hand embroidery, beading, printing and washing—particularly in the intimate wear sector. Workers skilled in pattern-making, bra technology, fabric technology and moulding are scarce. The country's small textile industry does not possess the capacity to supply quality fabric inputs to the garment sector. Thus, Sri Lanka's garment industry is heavily dependent on imports of textiles and accessories; an estimated 80-90 per cent of fabrics and 70-90 per cent of accessories are imported (Kelegama and Wijayasiri, 2004). The lack of backward integration is a problem now compared to the MFA era, although Sri Lanka can still manage without it.

Increased competition is putting pressure on RMG manufacturers to reduce lead-time (the time between the placing of an order and its delivery). However, the paucity of backward linkages and resulting dependence on imported inputs severely hinder production speed. Sri Lanka's geographic distance from its major input suppliers lengthens its lead time to an estimated 90-150 days as compared to the ideal lead-time of 60 days (Kelegama and Wijayasiri, 2004).

Another major weakness is the high and

ever increasing cost of production. Utilities, transport facilities and transactions are relatively expensive in Sri Lanka compared to its Asian competitors. Poor infrastructure—roads, telecommunications, water, electricity and fuel—further contributes to high production costs.

The T&C industry is becoming less and less attractive to both high-skilled and low-skilled workers, especially young women, due to long working hours, monotonous work and the negative social image surrounding the sector. The sector is deficient in several areas of 'decent work' as stipulated by the ILO (Busser, 2005). The high concentration of RMG factories in Western Province, particularly in the free trade zones, has led to population congestion and an unhealthy work environment with limited welfare facilities. Trade union activity is hindered by employers in the zone; wages are low, with women receiving lower pay than men for work of equal value; workers are sometimes forced into working overtime and are often denied their legal entitlements; women are frequently harassed at the workplace and on their way to work; and living conditions are low, with poor transport, sanitation and utilities (Busser, 2005).

Hence, although the country's unemploy-

ment level has stood at around 8 per cent in recent years, the RMG industry has suffered a shortage of labour. Currently, there is a major scarcity of sewing operators, the majority of whom are women. High absenteeism in the workplace and high labour turnover have proven costly

to manufacturers. Between 100,000 and 120,000 RMG workers—the majority of whom are skilled workers—have sought employment in foreign countries due to better pay and better economic and social opportunities (Kelegama and Wijayasiri, 2004).

### **The Five-Year Strategy**

In order to prepare Sri Lanka's garment sector for the post-MFA period, a number of associations representing various aspects of the industry collaborated with the government to establish the Joint Apparel Associations Forum (JAAF) in 2002. The JAAF identified industry weaknesses and came up with a comprehensive five-year strategy aimed at laying the groundwork for healthy post-MFA growth. Nine subcommittees composed of industry leaders and government officials were formed to implement the strategy, which consists of the following five objectives:

- Increase industry turnover from its 2001 level of US\$2.3 billion to US\$4.5 billion by 2007, taking into account the industry growth rate of 18.5 per cent over the period 1989-2000 and the possibility of a post-MFA reduced growth rate of 12 per cent.
- Transform the industry from a 'contract manufacturer' to a 'provider of fully integrated services' because leading buyers will increasingly focus on consolidating brand names while channelling all other functions to suppliers.
- Focus on high value-added RMG instead of low-cost RMG, and penetrate premium market segments.
- Consolidate and strengthen the industry.
- Establish an international reputation as a superior manufacturer in four product areas – sportswear, casual wear, children's wear, and intimate apparel.

The following steps were identified as key measures to transform the industry into a provider of fully integrated services:

- encourage backward integration;
- improve human resource capital/technology;
- change labour laws and regulations;
- promote Sri Lanka's image as a complier with high labour standards;
- cater to the needs of small and medium industries;
- strengthen bilateral and multilateral links with key nations;
- lobby the government for improved infrastructure;
- mobilise funds to implement changes.

As mentioned earlier, the industry faces major challenges with regard to labour. Currently, Sri Lanka's worker productivity levels are far from satisfying compared to cost-competitive countries. Hence, human resource development (HRD) is of particular importance if post-MFA challenges are to be met. The HRD subcommittee of the JAAF has set the ultimate goal of raising worker productivity levels through the creation of a competent and skilled human resource pool beyond mere technological improvements; the committee also looks to undertake the even greater challenge of changing social attitudes such that productivity becomes an integral component of people's thinking (Amalean, 2006). The committee is looking to implement the following six measures to achieve this goal:

- strengthen marketing capabilities;
- create design capabilities;
- improve productivity within organisations;
- develop technical competence;
- enhance grass-root skills;
- encourage a cohesive focus for apparel and textile education.

Five landmark initiatives have either already been implemented or are in the process of being implemented.

**1. The Bachelor of Design Programme (2001).** A four-year bachelor of design programme was established at the University of Moratuwa in June 2001 with the support of the London College of Fashion, University of the Arts, London. Twenty students graduated in 2005, and the demand for the programme has been high. Students have the opportunity publicly to showcase their designs to domestic industrialists and foreign buyers. Conferring academic status on an integral component of garment manufacturing is an important step in proping up the image of the industry and outlining its significance to the national economy.

**2. The Graduate Diploma in Apparel Marketing (2002).** In June 2002, the HRD subcommittee collaborated with the Chartered Institute of Marketing (CIM)-UK to launch the graduate diploma in apparel marketing, a worldwide first. The programme is expected to strengthen the existing weak link between domestic manufacturers and foreign buyers so as to provide better marketing opportunities for local industrialists. The diploma is recognised by CIM-UK and is open to both industry insiders and outsiders. The programme has produced 80 graduates so far.

**3. The Productivity Improvement Programme (2004).** This government-funded programme was launched in November

2004 with the aim of increasing productivity at 200 selected garment manufacturing plants by 30 per cent by the year 2007, and reducing the cost of manufacturing to US\$0.05 per minute. A team of trained graduates from the programme collaborates with core groups of employees of the participating factories to set benchmark figures and regularly monitor the factories' productivity gains over a period of two years.

**4. Partnership with North Carolina State University.** The HRD committee has built an alliance between the Clothing Industry Training Institute (CITI), the Textile Training and Services Centre (TTSC) and North Carolina State University (NCSU). NCSU is internationally recognised for its technical education programmes focused on textiles, and it will assist CITI and TTSC to raise their training programmes to meet world-class standards. The project is funded by the government and will focus specifically on technical competence, supply chain development, management and industrial engineering.

**5. Grass Roots Skills Training Programme.** The HRD committee has joined hands with USAID to create four model training centres for the apparel industry. The project is intended to enhance the training that currently takes place; at present, only 31 of 189 vocational training centres are geared towards providing apparel-related training, and even these aim only to produce sewing machine operators. USAID funds will be utilised to upgrade infrastructure, equipment and resource people at four of the 31 training centres. The improved centres will provide an education in multiple disciplines and will guarantee employment upon completion of the programme. The project will receive industry accreditation. It is expected to meet the demands of the apparel industry while empowering rural youth with valuable skills and knowledge.

## External Trade Links

---

As mentioned earlier, Sri Lanka received substantial duty concessions from the EU's GSP scheme. In July 2005, Sri Lanka became eligible for duty-free entry into the European market in accordance with the new GSP-plus system, specifically, under the General Arrangement and the Sustainable Development and Good Governance Arrangement. However, GSP-plus privileges for Sri Lanka are conditional upon fulfilling regional cumulation criteria under the rules of origin (ROO). In Sri Lanka's case, this means that South Asian Association for Regional Cooperation (SAARC) country inputs must be used in the production process. However, 58 per cent of Sri Lanka's textile imports for RMG production come from three *non*-SAARC countries—Hong Kong, South Korea and Thailand (Kelegama, 2005). Hence, Sri Lanka finds it difficult to make full use of the GSP-plus scheme. The government is now lobbying for a relaxation of ROO criteria to include ASEAN+3 in addition to the SAARC countries, i.e., to expand the regional cumulation into a super-regional cumulation.

The India-Sri Lanka Free Trade Agreement (ISLFTA), which came into operation in March 2000, has been disappointing from a Sri Lankan RMG perspective. It has not provided the country's RMG products with

as much access to the Indian market as was initially expected. The main reasons are the continued existence of various non-tariff barriers imposed by India and the strict rules of origin governing the agreement.

The Sri Lankan government and the JAAF are pursuing a free trade agreement with the US. Currently, the two countries have a trade and investment agreement, signed in July 2002. However, the conditions imposed by the US are far more stringent than those of the EU—implementation of TRIPS-plus, liberalisation of the services sector and the capital account of the balance of payments etc. The Sri Lankan government would encounter difficulties in meeting these requirements. Hence, a free trade agreement with the US does not seem likely in the near future (Kelegama, 2005). However, Sri Lanka is seeking support from the US Congress for preferential duty concessions for RMG exports as a tsunami relief measure.

Finally, the government is no longer looking to activate the IMF's Trade Integration Mechanism (TIM).<sup>1</sup> Massive capital inflows in 2005 for tsunami reconstruction built up central bank reserves and averted the danger of a balance of payments crisis in the face of trade liberalisation measures. Hence, the TIM is no longer required.

## New Thinking Evolves

---

Industry leaders agree that specialising in the production of specific product categories will enable Sri Lankan manufacturers to streamline their production processes and develop skills that will ultimately make them worldwide experts in their chosen product categories. They

also believe that targeting select customer groups will transform Sri Lanka from a basic manufacturer into a high-value-added service provider catering to prominent retailers in the US and the EU. After careful deliberation, industry leaders have suggested that the apparel industry

1. The TIM, announced by the IMF in April 2004, is a means of financing developing countries during a balance of payments deficit resulting from the implementation of trade liberalisation measures.

should focus on producing knitted tops, knitted bottoms, woven tops, woven bottoms and cotton and synthetic bras and briefs, while targeting specialty stores and selected discount stores in the US, UK, Italy, France and Germany.

The apparel industry of Sri Lanka is aiming to be the best supplier of clothing not only with regard to quality, price and speed but also design and innovation, execution, logistics and compliance with ethical standards. Industry leaders are striving to exceed customer expectations while raising the country's competitive position in the global market. With this in mind, the private sector is being strongly encouraged to establish a product development centre for the primary purpose of enhancing the industry's speed and flexibility. Today, inquiries from buyers need to be turned into sample garments within three days. However, experts believe that Sri Lanka should aspire to match Hong Kong, where design concepts are transformed into sample garments within a period of just six hours.

The Katunayake Export Processing Zone is the suggested location for the product development centre, giving foreign buyers easy access to airport and hotel facilities. The centre should be a one-stop shop where buyers can simply walk in with a concept and walk out with approved sample garments. Moreover, the centre is planning to focus on the specific product categories listed above. Bonded warehouses and duty-free imports of sample yardage are considered for overseas suppliers operating stalls at the centre, while domestic vendors will be allowed to set up sample

rooms. This project would require much support from the government, particularly with regard to obtaining land at Katunayake as well as soliciting domestic and foreign investors.

One of the fundamental weaknesses of Sri Lanka's apparel industry is the lack of scale economies, resulting in high production costs. Hence, Sri Lankan companies are planning to collaborate with Indian firms to manufacture fabrics and garment accessories to achieve economies of scale by catering to both the Indian and Sri Lankan markets. The acquisition of scale economies in conjunction with the establishment of a product development centre will provide some local manufacturers with product management capability. Experts believe that Sri Lanka should move in this direction within the next three years in order to keep at par with India's apparel industry.

It is further suggested that Sri Lanka make maximum use of duty concessions under the EU's GSP-plus scheme by taking advantage of Pakistan's strong woven fabric (cotton) industry to import textiles for RMG manufacture, thus fulfilling the GSP's regional cumulation criteria.

Cooperation with SAARC countries is vital for Sri Lanka since retailers consider strategic sourcing at a regional level instead of a company level. Brand owners such as GAP and Nike are currently looking to build collaborative relationships with their supply chain partners to develop regional centres of expertise ranging from design to manufacture.

### ***Concluding Remarks***

The strategies described above may be incorporated into a comprehensive agenda that might be in place by the end of 2008. Such a strategy will go a long way toward acquiring internationally competitive

standards for the Sri Lankan RMG industry. The key to Sri Lanka's future success is to create and implement innovative measures to eliminate supply-side constraints. In this regard, human resource



development will be given priority. Meanwhile, producers should reduce their dependence on developed countries for markets, capital, technology and training, while placing more emphasis on cooper-

ating with other south Asian countries for improved market access. Such strategic moves will complement the new strategy in place and reposition the RMG sector towards sustainable development.

## **References**

- Amalean, Mahesh. 2006. 'The Apparel Industry of Sri Lanka: an Analysis of the Past, Present and Future in a Global Context', *Apparel Update*, Sri Lanka Apparel Institute, May-July.
- Busser, Esther. 2005. 'Social Protection and Decent Work in Textiles and Clothing in Sri Lanka', in Saman Kelegama (ed.), *South Asia after the Quota System: Impact of the MFA Phase-out*. Institute of Policy Studies, Sri Lanka.
- CBSL. *Central Bank of Sri Lanka, Annual Report*, various issues. Colombo: Central Bank of Sri Lanka.
- Kelegama, Saman. 2005. 'Impact of the MFA Expiry on Sri Lanka' in Saman Kelegama (ed.), *South Asia after the Quota System: Impact of the MFA Phase-out*. Institute of Policy Studies, Sri Lanka.
- Kelegama, Saman and Janaka Wijayasiri. 2004. 'Overview of the Garment Industry in Sri Lanka' in Saman Kelegama (ed.), *Ready-Made Garment Industry in Sri Lanka: Facing the Global Challenge*. Institute of Policy Studies, Sri Lanka.
- UNDP. 2005. *Flying Colours, Broken Threads: One Year of Evidence from Asia after the Phase-out of Textile and Clothing Quotas*.
- UNDP. 2006. *Sewing Thoughts: How to Realise Human Development Gains in the Post-Quota World*.

# The Ready-Made Garment Industry of Bangladesh: Sustainability in the Post-MFA World

Nazneen Ahmed\*

## 1. Introduction

---

Ready-made garments (RMG) evolved as the main export product of Bangladesh during the late 1980s. Starting as a non-traditional export in the late 1970s, RMG achieved this status within a short time. While export earnings from the industry were barely \$1 million in 1978, they were more than \$5 billion in 2004, comprising 75 per cent of the country's total export earnings and 80 per cent of manufacturing export earnings. In 2004 RMG production was 11 per cent of total GDP and 29.7 per cent of manufacturing GDP (*Statistical Yearbook of Bangladesh* 1982; World Bank 2005). Some bold entrepreneurs without any experience in exports started RMG production, and later their success stories motivated others to come forward (Quddus and Rashid 2000).

Both domestic and international policies stimulated the rapid growth of the industry, as did the availability of cheap labour. For the last two decades, RMG have been the main source of growth of exports and formal employment in Bangladesh. This industry directly employs nearly 1.9 million people, 40 per cent of manufacturing employment; 90 per cent of them are females (Razzaque 2005; Mlachila and Yang 2004), mainly migrants from rural areas, usually from the poorest rural households (Afsar 2001). This industry has generated new employment rather than replacing jobs in other industries (Kabeer and Mahmud 2004).

During the last decade, several changes in international trade have generated new challenges and opportunities for the export-oriented RMG industry of Bangladesh. There are also several domestic challenges. In the international market, implementation of the rules and regulations of the World Trade Organisation and preferential trade arrangements among different groups of countries are of special concern for Bangladesh. In the domestic market, the challenges include lack of backward linkage (supply of inputs) for RMG, low efficiency of workers and lack of efficient infrastructure (Mlachila and Yang 2004; World Bank 2005<sup>1</sup>). Thus the main export industry of Bangladesh faces important challenges that may have large welfare consequences for those who are directly and indirectly dependent on this industry as well as for the economy as a whole.

This paper provides an overview of the Bangladesh RMG industry—its emergence, growth, strengths, weaknesses and future challenges. Section 2 provides a brief description of production, export and employment in the industry. Section 3 discusses international factors behind the growth of the industry, while section 4 discusses the domestic factors. Domestic challenges are taken up in section 5 and challenges originating in the international market in section 6. Section 7 discusses some post-MFA reality. Finally, section 8 draws some conclusions.

\* Research Fellow, Bangladesh Institute of Development Studies.

1. I was a member of the core team undertaking this study and worked on the value chain analysis of different industries.

## 2. Production, Export and Employment

### Production Chain

In the production chain of RMG in Bangladesh, natural or artificial fibres are spun into yarn. The yarn is then woven or knitted into fabrics, which in turn are cut and sewed into RMG.

Up to the fabric stage, the product is considered a textile. There are various intermediate stages between textile and RMG. For example, fabrics may need to be dyed and printed before cutting and sewing. There are

two broad categories of RMG products—woven and knitted. These two categories use different types of yarn, fabric, machines and manufacturing technology. These two types of RMG factory also differ in terms of labour use: woven RMG use mostly female workers and knitted RMG mostly male workers, because of differences in skill requirements. More skilled workers are required in knitted RMG, and female skilled workers are relatively scarce in Bangladesh.

### Emergence and Growth

Since the early 1980s, Bangladesh RMG exports have grown at a very fast pace in both value and share of total exports (Table 1). The (raw and processed) jute-dominant export bundle of the early 1980s has shifted to an RMG-dominant export bundle. While woven and knitted RMG together contributed only 0.4 per cent of total export earnings in 1980-81, they were 75.7 per cent in 1999-2000 and 74.2 per cent in 2004-05. It is evident from Table 1 that RMG exports were the main force behind the total export growth of Bangladesh. 'Other manufactured goods' also show a steady growth over time. Under this category, some promising industries are light engineering, chemicals, agro-processing and electronics. However, they are still infant industries, not in a position to replace RMG.

Initially Bangladesh produced and exported only woven RMG. Production and export of knitted RMG started in the early 1990s and experienced very robust growth (Table 2). While the share of knitted RMG was 15.1 per cent in total RMG exports in 1991, it became 33.7 per cent in 2003. The number of RMG factories rose from 134 in 1983-84 (Zohir 2001) to 3093 in 2005 (<http://www.bangladeshgarments.info/>).

Given that average family size is 5.6 (*Statistical Yearbook of Bangladesh* 1999), Table 3 shows that 10-12 million people depend directly and indirectly on the RMG industry.

A consequence of the rapid growth of the labour-intensive RMG industry is the growth of employment. While the industry employed 0.1 million people in 1985, it was employing nearly 1.9 million in 2003 (Razzaque 2005). Ninety per cent of the workers in the industry are females (Bhattacharya and Rahman 2000a). Moreover, 90 per cent of the workers migrated from rural areas (Afsar 2001). Employment in this industry has made women visible in national employment statistics and has brought about a social change (Zohir 2001). In Bangladesh a factory job is one of the few socially acceptable ways for uneducated or poorly educated women to earn a living. In rural areas women live in a traditional atmosphere that does not permit them to go to cities alone (or even outside the village in some cases). Rural women remain largely outside the visible cash economy, functioning primarily in the domestic and informal economies. Thus it is quite a new development for a large number of women to work in the city-based RMG factories, inevitably changing their status and economic relevance.

<b>Export</b>	<b>1980-81</b>	<b>1990-91</b>	<b>1999-00</b>	<b>2003-04</b>	<b>2004-05</b>
Primary goods	209 (29.4)	306 (17.8)	469 (8.2)	485.8 (6.4)	648 (7.49)
Raw jute	119 (16.8)	104 (6.1)	72 (1.3)	79.7 (1.1)	96 (1.11)
Tea	41 (5.8)	43 (2.5)	18 (0.3)	15.8 (0.2)	16 (0.18)
Frozen food	40 (5.6)	142 (8.3)	344 (6)	390.3 (5.1)	421 (4.86)
Other primary goods	9 (1.3)	17 (1.0)	35 (0.6)	67 (0.89)	116 (1.34)
Manufactured goods	501 (70.6)	1,411 (82.2)	5,283 (91.8)	7,117.2 (93.6)	8,006 (92.51)
Jute goods	367 (51.7)	290 (16.9)	266 (4.6)	246.5 (3.2)	307 (3.55)
Leather & leather goods	57 (8.0)	136 (7.9)	195 (3.4)	211.4 (2.8)	221 (2.55)
Woven garments	3 (0.4)	736 (42.9)	3083 (53.6)	3538.1 (46.5)	3598 (41.58)
Knitted RMG	0 (0.0)	131 (7.6)	1270 (22.1)	2148 (28.3)	2819 (32.58)
Chemical products	11 (1.5)	40 (2.3)	94 (1.6)	121 (1.60)	197 (2.28)
Other manuf'd goods	63 (8.9)	78 (4.5)	375 (6.5)	973.2 (12.8)	652 (7.53)
Total exports	710	1717	5,752	7,603	8,654

Note: Years refer to the fiscal year of Bangladesh, which starts on 1 July.  
Source: Centre for Policy Dialogue (2001) and Bangladesh Bank (<http://www.bangladesh-bank.org/econdata/exprtrec.html>, accessed on 17 February 2005).

### **3. International Reasons for the Growth of the RMG Industry**

The RMG industry of Bangladesh flourished under the umbrella of the Multi-Fibre Arrangement (MFA). The first MFA, in 1974, provided rules for the imposition of import quotas, through either bilateral agreements or unilateral actions, on trade in textiles and RMG between individual developed country importers and developing country exporters.<sup>2</sup> Although the system was to restrict exports, it helped the industry in many developing countries like Bangladesh. Relatively less restrictive quotas for Bangladesh than for traditional exporters (Korea, Hong Kong, Japan, China) acted as a blessing in disguise,

ensuring a market for Bangladesh RMG in the USA (Bhattacharya and Rahman 2000b).

During this period, political problems in Sri Lanka and the anti-export environment in India, then the two major south Asian RMG producers, induced buyers to shift to Bangladesh (Spinanger 2000). Another important stimulator of RMG growth in Bangladesh was tariff- and quota-free access to the European Union under the Generalised System of Preferences (GSP), provided that Bangladesh met the rules of origin requirement. The GSP allows EU im-

2. After 1974, the MFA was renegotiated four times, and each modification brought increasingly restrictive measures—covering a broader range of products and reducing flexibility in the system.

Year	Knitted	Growth	Woven	Growth	Total	Growth
1991	131		735		866	
1992	118	-11.0	1064	30.9	1182	26.7
1993	204	42.2	1240	14.2	1444	18.1
1994	264	22.7	1291	4.0	1555	7.1
1995	393	32.8	1835	29.6	2228	30.2
1996	598	34.3	1948	5.8	2546	12.5
1997	763	21.6	2237	12.9	3000	15.1
1998	940	18.8	2843	21.3	3783	20.7
1999	1,035	9.2	2984	4.7	4019	5.9
2000	1,269	18.4	3082	3.2	4351	7.6
2001	1,496	15.2	3363	8.4	4859	10.5
2002	1,459	-2.5	3124	-7.7	4583	-6.0
2003	1,653	11.7	3258	4.1	4911	6.7

Note: The figures in Table 2 differ slightly from those of Table because Table 2 describes calendar years rather than fiscal years.  
Source: *Bangladesh Export Statistics* (different issues), Export Promotion Bureau of Bangladesh.

porters to claim full tariff drawback on imports from Bangladesh (Bhattacharya and Rahman 2000b). On average, the tariff rate of RMG in the EU is 12.5 per cent, which

becomes zero under the GSP. This made the EU the largest RMG export market of Bangladesh. Table 4 shows that Bangladesh is also relatively less restricted in the US.

#### **4. Domestic Reasons for Growth**

After achieving independence in 1971, Bangladesh adopted trade and investment policies promoting large-scale public sector enterprises, widespread quantitative restrictions on imports, high import tariffs, foreign exchange rationing and an over-valued exchange rate. These resulted in an 'anti-export' bias, fiscal imbalance and lack of incentives for industrialisation. From the early 1980s, to enhance economic growth, Bangladesh initiated steps to deregulate, decontrol and liberalise the economy. As a result of various liberalisation policies and reforms under the Structural Adjustment

Programmes of the World Bank and IMF, average nominal tariff rates in Bangladesh came down from 89 per cent to 17 per cent during 1992-2000 (CPD 2001). Easier access to imported raw materials and incentives for export activities reduced the 'anti-export', bias in Bangladesh and encouraged export-oriented investments.

The main export incentives received by the RMG industry include duty drawback on inputs used to produce exports, bonded warehouse facilities,<sup>3</sup> cash incentives<sup>4</sup> and back-to-back (L/C) facilities.<sup>5</sup> Foreign ex-

3. These allow a firm to delay payment of tariffs until it is ready to consume imported inputs, and if these inputs are used to produce export products, then it is not required to pay the tariff.
4. Domestic suppliers to export-oriented RMG factories receive a cash payment equivalent to 10 per cent of the value added of the exported RMG. This incentive is expected to be completely phased out by the end of 2006.
5. Under this system, exporters of RMG are able to import inputs against the export orders placed in their favour by the final RMG importers, obtaining credit from commercial banks to pay for imported inputs. This provision allows exporters to avoid investing their own resources as working capital.

change liberalisation making the Bangladesh currency (taka) convertible also stimulated imports of inputs and RMG exports.

In addition, the availability of workers at low wages is a major competitive advantage of Bangladesh. In 2003 the wage per worker in Bangladesh was 39 per cent of the wage in China. Data for current comparisons are scarce, but in the late 1990s, the wage in Bangladesh was 40 per cent lower than in India. There is an almost unlimited supply of mostly young unmarried females willing to migrate from rural areas and maintaining a close link with the rural economy, which makes it easy to employ them at a low wage.

## 5. Domestic Challenges

### Dependence on Imported Inputs

Most of Bangladesh's RMG exports are made from imported textiles. Bangladesh is a net importer of textiles and net exporter of RMG. Ultimately there is a trade surplus from the combined textile and RMG trade. In 2002 Bangladesh imported \$1.8 billion of textiles and related inputs and the trade surplus was \$2.8 billion (Mlachila and Yang 2004). The domestic textile industry cannot fill the growing demand for raw materials for RMG. There are three types of RMG manufacturing in Bangladesh: i) integrated manufacturing, in which companies import the cotton and do the rest of the production process (spinning, weaving/knitting, cutting and sewing) on their own; ii) factories importing yarn and then doing the rest of production; iii) companies importing fabric and sewing the RMG, known as 'cut, make and trim' (CMT) factories (World Bank 2005). Most of the knitted RMG factories in Bang-

6. Export tax equivalent (ETE) of quotas is expressed as a percentage of f.o.b. price (net of quota price). For detail on ETE, see the document by Joseph Francois and Dean Spinanger at <http://www.gtap.agecon.purdue.edu/resources/download/723.pdf> (accessed on 9 April 2005).

Number of companies	3093
Employment: direct (2003)	1.9 million
in accessory industries (2002)	0.8 million
indirectly dependent (2002)	10 million
Exports (2003, \$ million): total	6,548
Garments	4,912
Knitted	1,653
Woven	3,258
Input supplying units (2000-2001)	
Spinning mills	142
Weaving mills	109
Dyeing, printing, finishing, other	104
Contribution to GDP (2004)	9.5%
Major export markets (2003, \$ million)	
EU	3,400
United States	2,100
Canada	170
Japan	108
Hong Kong	90
India	84

Source: BGMEA (2003-2004), Export Promotion Bureau of Bangladesh (2002-2003), <http://www.bangladeshgarments.info/> (accessed 14 March 2005) and World Bank (2005).

Producer	RMG		Textiles	
	USA	EU	USA	EU
Bangladesh	0.0	0.0	7.6	0.0
India	3.0	1.0	20.0	20.0
China	20.0	1.0	36.0	54.0
Pakistan	9.8	9.4	10.3	9.2

Note: Estimates are based on the quota price information for countries other than India. For India estimates are interpolated from quota utilisation data. Source: Information in Mlachila and Yang, 2004

ladesh belong to the first two categories, and woven RMG factories belong to the third. Thus knitted RMG are relatively less dependent on imported raw materials than woven RMG. While 85 per cent of the fabric used in woven RMG is imported, this is true of only 25 per cent of the yarn and fabrics used in knitted RMG (World Bank, 2005).<sup>7</sup> In addition to fabrics, other Bangladesh RMG industry imports include raw cotton, cotton and synthetic yarn, synthetic fibre and textile accessories.<sup>8</sup>

As a result of the heavy dependence on imported inputs, the value added of the RMG industry is quite low. For woven RMG, value added is only 25-30 per cent

of the export value (Bhattacharya and Rahman 2000b). Because of less dependence on imported inputs, the knitted RMG industry has a higher value added, between 40 and 60 per cent. Thus, although the RMG industry has a share of 75 per cent in total exports, its net export earning is only 40 per cent of the total (Rahman and Razzaque, cited in Bhattacharya and Rahman 2000b). Dependence on imported inputs also lengthens the time required for filling an export order. It is too costly for manufacturers to keep an inventory, because woven RMG are produced on orders from the buyers, who specify the type and colour of fabrics. At most, manufacturers keep inventories of very basic fabrics.

#### Product and Market Concentration of RMG Exports

Although woven RMG are the larger part of Bangladesh exports, knitted RMG are growing faster. However, the RMG exports are highly concentrated on a few products. Only five categories (SITC code 8423, 8429, 8441, 8451 and 8461) made up almost 85 per cent of total RMG exports in 1997 (Islam 2001). Ahmed (2005) has also noted that nine categories<sup>9</sup> (340, 341, 347, 348, 352, 359, 634, 647 and 659) constituted 60 per cent of Bangla-

desh's RMG export to the USA in 2004. Bangladesh's RMG product concentration is much higher than India's and China's (Islam 2001).

Moreover, Bangladesh's RMG exports are concentrated in two markets, the USA and the EU. These two markets together accounted for 94 per cent of the total in 2002-03, when 56 per cent went to the EU and 38 per cent to the USA.

#### Worker Productivity

Although the wages of RMG workers in Bangladesh are low, so also is their productivity. Value added per worker in Bangladesh is lower than for its competitors. Based on data from 1980 to 1992, Islam (2001) showed that labour productivity in Bangladesh is less than half of that of India and

Sri Lanka. The average number of operatives per sewing machine is 2.5 to 3, in contrast with just over 1 in modern factories (Spinanger 2000).

Moreover, capital intensity is low in Bangladesh factories. The World Bank (2005) has

7. Discussions with experts (among others Dr. Abdul Hye Mondal, senior research fellow, Bangladesh Institute of Development Studies) reveal that the main reason for the better integration of knitting RMG factories is the relatively low investment and simpler manufacturing technology required.
8. The major exporters of woven cotton fabrics to Bangladesh in 1996 were Hong Kong, China, India, Pakistan and Taiwan. For woven fabrics of artificial fibres, Bangladesh relies on imports mainly from China, Singapore, Hong Kong, Thailand, South Korea and Japan (Islam 2001).
9. US product categories are different from HS or SITC categories. To compare between different systems, see Major Shippers Report, US Department of Commerce, Office of Textiles and RMG, at [www.OTEXA.com](http://www.OTEXA.com) (accessed on 10 August 2005).

shown that average capital per worker in RMG factories of Bangladesh is \$1500, while in China it is \$4000. Low productivity partially offsets low wages as a competitive advantage.

Bangladesh produces low value-added RMG for the low- and medium-price quartiles in the EU and USA. Even compared to the

other exporters of similar products, the prices of Bangladeshi products are low. Islam (2001) noted that for 11 out of 20 selected RMG categories imported into the USA, the unit price of Bangladesh is lower than the world average. Bangladesh RMG are also characterised by a narrow product range, mainly basic tops, shirts, trousers and unstructured jackets (Gherzi 2002).

### **Infrastructure Bottlenecks**

---

The World Bank (2005) identified three main sources of comparative disadvantage for Bangladesh's export industries: infrastructure, corruption and the high cost of finance. Electricity production, telecommunications and port facilities are inefficient, which reduces the competitiveness of Bangladeshi exporters, reducing the quality of production, increasing costs and extending the time needed to supply commodities. In Bangladesh the lead time for RMG exports varies between 120 and 150 days, whereas the corresponding time for Sri Lanka is 19-45 days and for India only 12 days for similar products (Bhattacharya and Rahman 2000b). As a result of irregular electric power supplies, most factories maintain their own generator, which costs 2.5 times the cost of power from the grid (World Bank 2005).

Limão and Venables (2001) identified infrastructure as an important determinant of transport cost. This is observed in the

case of Bangladesh. Chittagong port, the country's main seaport, lacks modern equipment. Its container terminal can handle only 100-105 lifts per berth per day, less than half the productivity standard of 230 lifts. Moreover this port performs poorly because of corruption and inefficient governance (Hossain 2002), which increases lead times and prices of products. The World Bank (2005) has pointed out that infrastructure bottlenecks in electric power, gas, port facilities and telecommunications are negatively affecting Bangladeshi exports, including RMG. The study also found that bribes paid when importing equipment for the knitted RMG industry can raise the equipment cost by 6-10 per cent.

The large growth of Bangladesh RMG exports despite all the infrastructure bottlenecks reveals that Bangladesh could produce at an even lower price if these bottlenecks were removed.

### **Restrictions on Foreign Direct Investment and High Cost of Finance**

---

Except for the export processing zones, foreign direct investment (FDI) in the RMG industry is highly restricted in Bangladesh. Although this protects local entrepreneurs, the industry suffers in terms of a restricted flow of modern technology and skills.

While FDI is restricted, the cost of bor-

rowing from the local banking system is high compared to competitors (e.g. India and China). The real interest rate in Bangladesh in 2002 was 12.4 per cent, more than twice the rate prevailing in China (5.6 per cent) and also much higher than that in India (8.7 per cent) or Sri Lanka (4.5 per cent).



## 6. International Challenges

The changing features of the international market pose various challenges to the Bangladeshi RMG industry. RMG accounted for 3.1 per cent of world merchandise exports and 4.2 per cent of manufacturing exports in 2003. In the same year, textiles accounted for 2.3 per cent of world merchandise exports and 3.2 per cent of manufacturing exports. Western Europe is the leading importer and Asia the leading exporter of RMG. Trade in RMG within the EU is more important (\$55.5 billion

in 2003) than intra-Asia trade (\$25.2 billion in 2003). Asia mainly exports RMG to North America and the EU. There is more concentration among the leading importers than among the exporters of RMG. According to 2003 statistics, Bangladesh is the eighth largest RMG exporter, supplying 1.9 per cent of the world's RMG exports. China is the largest exporter and the USA the largest importer (as a single country). China's share in exports is rising very rapidly.

### Quota Abolition and US Market

Import quotas under the MFA, which assisted the growth of the RMG industry in Bangladesh, have been abolished since 1 January 2005. Removal of MFA import quotas has generated doubts about the future growth or even survival of the RMG industry of Bangladesh and many other least developed countries. Possible impacts of the phasing out of textile and RMG import quotas have received attention in a number of studies. In general, these studies have concluded that ending the MFA will result in an increase in world trade of RMG and a decrease in consumer prices. But impacts will vary between countries. In the case of Bangladesh, pessimistic predictions have been made by studies like Lips *et al.* (2003) and Mlachila and Yang (2004).

Until the end of MFA, Bangladesh faced import quotas only in the USA, quotas and tariff restrictions in other markets having been removed earlier,<sup>10</sup> while many competitors were still facing tariff and quota restrictions. With the removal of import quotas, Bangladesh faces increased competition in both the USA and the EU. The USA is the second most important market

for Bangladesh's RMG, and because there is no tariff preference here, quota-free competition may force Bangladesh out of this market. The effects of import quota removal mainly depend on how restricted the exports of a country were under the MFA regime, in absolute terms and relative to competitors. In the USA, Bangladesh was facing import quotas on 30 items (in 2001-02), and 69 per cent of RMG imports from Bangladesh were under import quotas. The average import quota fill rate of Bangladesh was also very high (Mlachila and Yang 2004).

The ETE of quotas for Bangladesh was relatively lower than for its competitors. Mlachila and Yang (2004) noted that in 2002 Bangladesh was the second most restricted Asian country, after China. However, they further pointed out that in 2003 and early 2004, the ETE of quotas for Bangladesh had fallen to a large extent compared to its competitors. Therefore it was predicted that removal of quotas might increase most the exports of RMG from competitors of Bangladesh like China and India. The competition in a quota-free regime was predicted to be stronger because of a high degree of simi-

10. The four quota countries/regions were USA, EU, Canada and Norway. Under the GSP, Bangladesh did not face any restrictions in the EU; Norway's import quotas had all been removed, while tariffs on exports from LDCs were removed in 2002; Canada allowed tariff- and quota-free access for all LDCs from January 2003.

larity between the export products of Bangladesh and those of several other strong RMG exporters. The export similarity index calculated by Mlachila and Yang (2004) shows China and India to be exporting similar products as Bangladesh to the USA and Pakistan to the EU.

To predict the possible consequences of abolition of the MFA, it is useful to look at the domestic resource cost of RMG production in Bangladesh. The f.o.b. price can be considered as an indicator. The f.o.b. price (without any cost of quota) for a 180 gram T-shirt (HS 6109) was calculated by the World Bank (2005) as \$1.30 in Bangladesh, \$0.90 in China, \$1.20-1.50 in India and \$2.00 in Nepal. Thus, after quota abolition, the competitive position of Bangladesh may deteriorate.

#### **The EU and Rules of Origin**

Textile and RMG exports from Bangladesh have enjoyed preferential market access in the EU under the GSP since the early 1980s. By contrast, many of Bangladesh's competitors faced quota restrictions in this market (Table 4). The countries facing import quotas included China, India, Pakistan, Sri Lanka, Indonesia, Thailand and Vietnam. Many of them also faced tariffs at an average rate of 12.5 per cent. Therefore, the post-MFA competition in the EU can be more intense than in the USA. The preferential position of Bangladesh may decrease as its competitors get quota-free access to the market. (However, Razzaque [2005] predicts that Bangladesh's RMG may maintain a better competitive position in the EU than in the USA because, unlike the USA, the EU applies no tariffs.)

Moreover, the heavily import-dependent Bangladesh RMG industry may find it difficult to meet the rules of origin (ROO) requirement in the EU. Exports from Bangladesh face restrictions in the form of the

Looking further into the cost structure of the same product, materials and administrative costs are two major cost components. Seventy-eight per cent of the total cost is for materials, mainly imported cotton fabric (93 per cent of total material cost). Administrative costs are 12 per cent and include profits, which are 40 per cent of total administrative costs. Sewing/assembly is 4.7 per cent of product cost, and labour is 67 per cent of the sewing cost. Thus higher administrative cost and material cost pose challenges in the post-MFA world.

Furthermore, the RMG products of Bangladesh face high import tariffs (15 to 20 per cent) in the USA. The estimates of Razzaque (2005) suggest that tariff-free access to the USA could increase Bangladeshi exports by \$530 million.

ROO in the EU market. The ROO require 51 per cent domestic value added, which is often difficult, especially for woven RMG, which are heavily dependent on imported inputs (section 3). The knitted RMG industry can meet this criterion, because the value added in knitted RMG is higher, around 60 per cent (Bhattacharya and Rahman 2000b).

Since 2001 Bangladesh, as an LDC, has been included under an EU special arrangement under the GSP, the Everything but Arms (EBA) initiative. The EBA extends tariff- and quota-free access to all products originating in LDCs, except arms and ammunition. However, because the ROO provision remains the same under EBA as it is in the GSP, there is no extra benefit for the RMG industry of Bangladesh. It was expected that the EU would soften the ROO criteria under its new GSP scheme for the period 2006-2015, but this did not happen. Now the change is expected to evolve under the so called regional or South Asian Association for Regional Cooperation (SAARC) cumu-

lation. At the moment the EU GSP includes the possibility of regional cumulation. Under this treatment, a product produced in a country in a regional group and then processed in another country in that group will be considered as the product of the country where the final processing took place. However, the value added in the final processing has to be higher than the highest customs value of the products used originating in any of the other countries of the group. Since the local value added of RMG of Bangladesh, especially woven RMG, is only 25-30 per cent, Bangladesh was unable to benefit from this regional cumulation facility. If fabrics are imported from India, and the local value added is 25 per cent and value added by India is 75 per cent, the EU will consider the product as originating from India, and the tariff will be the rate applicable for In-

dia, which is much higher than for Bangladesh.

The EU's free trade agreements (FTA) with other countries are imposing extra challenges for Bangladesh, specially that with Mexico. The FTA between the EU and Mexico officially entered into force on 1 July 2000. It will liberalise more than 96 per cent of EU-Mexico trade by 2007 at the latest. As the export similarity in RMG is high between Bangladesh and Mexico (Islam 2001), Bangladesh may lose markets in the EU. Moreover, the enlargement of the EU and its tariff reduction agreements with the central and east European countries might divert trade from Bangladesh. Further enlargement of the EU might also be a threat, especially because of the possible membership of Turkey.

### Regional Preferential Trade Arrangements

Apart from the multilateral trade rules, trade in textiles and RMG can be affected by regional preferential trade arrangements (PTAs). The effects of regional PTAs on member and non-member countries have received attention in both the theoretical and the empirical literature (e.g. Krugman 1991; Ahmed 2001). These studies considered both quantity and terms of trade effects of PTAs. The member countries of a PTA face trade creation and/or trade diversion, which may be welfare-increasing or welfare-decreasing for them. Non-members may be affected unfavourably both in quantity (exports may decline as a result of trade diversion) and in terms of trade.<sup>11</sup> If a PTA is large and receives a terms of trade gain by reducing its trade with the rest of the world in favour of its own members, then the rest of the world suffers a terms of trade loss.

The regional PTAs that are of special con-

cern for the RMG trade of Bangladesh are the North American Free Trade Agreement (NAFTA) and the SAARC Preferential Trading Arrangement (SAPTA), later transformed into the South Asian Free Trade Area (SAFTA). NAFTA is a special concern for Bangladesh because it gives special privileges to Mexico in the USA. US tariffs on RMG originating in Mexico have been eliminated since 1 January 1999. All tariffs on textiles and RMG traded between Canada, the USA and Mexico were eliminated by 2003. However, the NAFTA preferential tariff applies only to products originating from a member country. For RMG, the triple transformation rules of origin must be met. That is, the yarn, fabric and garment must be made in NAFTA countries, and RMG goods qualify only if the non-NAFTA content is 7 per cent or less. Islam (2001) has noted that trade diversion effects caused by NAFTA can include increased imports from Mexico at the expense of Asian countries. While the

11. Non-members have to reduce pre-tariff prices of their exports to the PTA market and thus the terms of trade deteriorate for them.

impact of NAFTA is a concern for Bangladesh, another concern is the implementation of the US Trade and Development Act 2000 (TDA 2000). Under this act a total of 72 countries (48 from sub-Saharan Africa and 24 from the Caribbean basin) receive tariff- and quota-free access to the USA for textiles and RMG products if they meet certain eligibility criteria. For the Caribbean countries, this is a process of facilitating their ultimate participation in the Free Trade Area of the Americas. In many cases they will receive NAFTA treatment for their exports. This act might have impacts on RMG exports from Bangladesh to the USA, especially because of preferential treatment of

Jamaica and the Dominican Republic, which are competitors of Bangladesh.

Although SAPTA was structured in the early 1990s and went through several tariff reduction stages, it has not had a substantial impact. Later it was transformed into SAFTA. Implementation of SAFTA might help to strengthen the competitiveness of Bangladesh's RMG by allowing low-cost imports of inputs from the region. Although there are possible trade diversion effects from SAFTA, it has high potential to extend trade creation and other (often non-economic) benefits among its members.

### **Concerns about Workers' Rights**

Increased competition arising from liberalised international trade compels entrepreneurs to reduce the cost of production while maintaining the quality of products. This is often done at the cost of violating the rights of the workers in the export-oriented manufacturing sector. However, various stakeholders (e.g. consumers, trade unions, International La-

bour Organisation) have become concerned about this, and importers are requiring exporters to maintain certain codes of conduct in their factories. These requirements often pose additional costs for the entrepreneurs and could decrease price competitiveness. Moreover, problems arise when importers' requirements are conflicting.

## ***7. Experiences of Bangladesh in Post-MFA World***

Quite a number of studies analysed the possible consequences of abolition of MFA quotas before the event. These studies mostly predicted a decrease in apparel exports from Bangladesh, although the results varied under different assumptions or scenarios. Mlachila and Yang (2004) show that the results depended on the assumed elasticities of substitution between products from different countries (the higher the elasticities, the greater the impacts).

Almost a year and a half have passed since the abolition of MFA quotas. Looking at the actual performance, there has been a 19 per cent growth in Bangladeshi RMG exports to the USA. However, some apparel

products have experienced a downturn, e.g. cotton underwear and women's coats. It is too early to conclude about the impacts of MFA quota abolition. These impacts can be short term in nature, and the medium to long-term effects will depend on the how well Bangladesh can adjust to the changed competitive environment. Moreover, Chinese exports of many of the important export products of Bangladesh to the US market are under safeguard quotas. Therefore, the real competitiveness of Bangladesh will be revealed after this safeguard against Chinese exports is abolished. For nine out of the top 10 export products of Bangladesh to the US market in 2005, China was facing safeguards.

## 8. Conclusions

---

Bangladesh's RMG industry has grown very rapidly with the help of MFA import quotas and an abundant supply of cheap workers, but without a strong domestic backward linkage. Too much product and market concentration and imported input dependency have raised questions about the future of this industry in a quota-free regime. In addition to import quota removal, negative impacts (from trade diversion or terms of trade effects) from various regional PTAs are also of special concern for the RMG industry. At the same time, joining a regional PTA like SAFTA could positively affect the RMG industry and also the economy as a whole through economic (including trade creation) and non-economic effects. In the US market, the future of top RMG products of Bangladesh is uncertain because China is facing safeguard quotas for most of those products. When those quotas are removed after 2008, Bangladesh's RMG exports to the USA may decline drastically. Duty-free entry to the US market is necessary for the future growth or even the sustainability of the RMG industry of Bangladesh.

Domestically, various structural bottlenecks associated with low labour productivity and low levels of investment are intensifying the international challenges.

The challenges should be handled carefully because the fates of 10 million people are associated with this industry. Any shrinkage will make many workers unemployed. The domestic problems need immediate attention, because competitiveness in a quota-free world depends on quick delivery of quality products at a low price. This requires better infrastructure, more investment and strong backward linkage. Especially the improvement of transport and port facilities is important to ensure timely delivery of products. Lifting the ban on yarn imports from India coming overland can reduce the transport costs of these imports. To ensure timely delivery, the setting up a central bonded house could reduce the inventory cost of individual firms. The rights of the workers have to be addressed, which increases cost of production but in turn could help to improve the efficiency of workers.

## Bibliography

- Afsar, R. 2001. 'Sociological Implications of Female Labour Migration in Bangladesh', in Sobhan, R. and N. Khundker (eds). *Globalisation and Gender: Changing Patterns of Women's Employment in Bangladesh*. Dhaka: Centre for Policy Dialogue and University Press Limited, pp. 91-165.
- Ahmed, N. 2001. *Trade Diversion Due to the Europe Agreements: Should Bangladesh Care?* Research Report 171. Dhaka: Bangladesh Institute of Development Studies.
- Ahmed, N. 2005. 'External Sector: Performance and Prospects', paper presented in a seminar on National Budget for 2005-06 and PRSP, organised by Bangladesh Institute of Development Studies, 29 May 2005, Dhaka.
- Ahmed, N. 2006. 'Bangladesh Apparel Industry and its Workers in a Changing World Economy', PhD thesis, University of Wageningen, The Netherlands.
- Bach, C.F., B. Dimaranan, T.W. Hertel and W. Martin. 1997. 'Market Growth Structural Change and the Gain from the Uruguay Round', DERG Working Paper, 3, Development Economics Research Group, University of Copenhagen, Institute of Economics.

- BGMEA. 2003-2004. *Members' Directory, 2003-2004*. Dhaka: Bangladesh Garment Manufacturers and Exporters Association.
- Bhattacharya, D. and R. Rahman. 2000a. 'Bangladesh's Apparel Sector: Growth Trends and the Post-MFA Challenges', paper presented at the seminar on Growth of Garments Industry in Bangladesh: Economic and Social Dimensions organised by BIDS and OXFAM, 21-22 January 2005, Bangladesh.
- Bhattacharya, D. and R. Rahman. 2000b. 'Experience with Implementation of WTO-ATC and Implications for Bangladesh', CPD Occasional Paper Series, No. 7. Dhaka: Centre for Policy Dialogue.
- CPD. 2001. 'Policy Brief on Industry and Trade', CPD Task Force Report. Dhaka: Centre for Policy Dialogue.
- Diao, X. and A. Somwaru. 2001. 'Impact of the MFA Phase-Out on the World Economy: An Intertemporal Global Equilibrium Analysis', TMD discussion paper, 79, International Food Policy Research Institute.
- Elbehri, A. 2004. 'MFA Quota Removal and Global Textile and Cotton Trade: Estimating Quota Trade Restrictiveness and Quantifying Post-MFA Trade Patterns', paper presented at the 7th Annual Conference of Global Economic Analysis, Washington, DC, USA.
- Export Promotion Bureau of Bangladesh, 2003. *Export Statistics, 2002-2003*. Dhaka: EPB.
- Gherzi. 2002. 'Strategic Development and Marketing Plans for RMG and Related Industries', report submitted by the Gherzi Textile and Project Promotion and Management Associates to the Ministry of Commerce, Bangladesh, December.
- Hertel, T.W., W. Martin, K. Yanagishima and B. Dimaranan. 1996. 'Liberalizing Manufactures Trade in a Changing World Economy', in Martin, W. and L.A. Winters (eds.), *The Uruguay Round and the Developing Countries*. Cambridge: Cambridge University Press, pp. 183-215.
- Hossain, B.M. 2002. *Chittagong Port: Potentials, Performance and Private Sector Participation in a Globalised Situation*. Working Paper, BIDS Millennium Series Dhaka: Bangladesh Institute of Development Studies.
- Islam, S. 2001. *The Textile and Clothing Industry of Bangladesh in a Changing World Economy*. Dhaka: Centre For Policy Dialogue and the University Press Limited.
- Kabeer, N. and S. Mahmud. 2004. 'Globalization, Garments and Poverty: Bangladeshi Garment Workers in Global & Domestic Markets', in *Journal of International Development*, 16:1, pp. 93-109.
- Krugman P.R. and M. Obsfeld. 2000. *International Economics, Theory and Policy*. Addison-Wesley, International Editions.
- Limão, N. and A.J. Venables. 2001. 'Infrastructure, Geographical Disadvantage, Transport Costs and Trade', in *World Bank Economic Review*, 15:3, pp. 451-79.
- Lips, M., A. Tabeau, F. van Tongeren, N. Ahmed and C. Herok. 2003. 'Textile and Wearing Apparel Sector Liberalization—Consequences for the Bangladesh Economy', paper presented at the 6th Conference on Global Economic Analysis, The Hague, The Netherlands.

- Mlachila, M. and Y. Yang. 2004. 'The End of Textile Quotas: A Case Study of the Impact on Bangladesh', IMF Working Paper, WP/04/108.
- Nordas, H.K. 2004. 'The Global Textile and Clothing Industry Post the Agreement on Textiles and Clothing', WTO Discussion Paper. Geneva: World Trade Organisation.
- Quddus, M. and S. Rashid. 2000. *Entrepreneurs and Economic Development, The Remarkable Story of Garment Export from Bangladesh*. Dhaka: The University Press Ltd.
- Razzaque, A. 2005. 'Sustaining RMG Export Growth after MFA Phase-out: An Analysis of Relevant Issues with Reference to Trade and Human Development', study conducted for Ministry of Commerce, Bangladesh, and United Nations Development Programme, mimeo.
- Spinanger, D. 2000. *The WTO and Textile and Clothing in a Global Perspective: What's in it for Bangladesh?* Dhaka: Centre for Policy Dialogue.
- Statistical Yearbook of Bangladesh, 1982. Dhaka: Bangladesh Bureau of Statistics.
- Statistical Yearbook of Bangladesh, 1999. Dhaka: Bangladesh Bureau of Statistics.
- Viner, J. 1950. *The Customs Union Issue*. New York: Carnegie Endowment for International Peace.
- World Bank. 2005. *Bangladesh: Growth and Export Competitiveness*. Dhaka: World Bank.
- Yang, Y., W. Martin and K. Yanagishima. 1997. 'Evaluating the Benefits of Abolishing the MFA in the Uruguay Round Package', in Hertal, T.W. (ed.), *Global Trade Analysis: Modeling and Applications*. Cambridge: Cambridge University Press, pp. 271-98.
- Zohir, S.C. 2001. 'Beyond 2004: Strategies for the RMG Sector in Bangladesh', in Abdullah, A. (ed.), *Bangladesh Economy 2000, Selected Issues*. Dhaka: The Bangladesh Institute of Development Studies, pp. 137-63.

# Myanmar's Garment Industry in the Sustainable Development Process

Myo Myo Myint\*

Myanmar had a long history of domestic textile and garment production, but it was left behind by other countries during the socialist era (1962-1988). In the early 1990s, the government turned to an open market economy, and garment manufacturing became a productive sector that was slowly attracting foreign direct investment. Garment manufacturing for export in Myanmar was successful for a time due to favourable circumstances such as an under-utilised quota from the EU and the US, low labour costs and easy start-up. Unfortunately, the success of the industry did not last long because of sanctions imposed by the US.

The garment industry has been promoted

since 1993 and has contributed to the country's economy. Garments were just under 7 per cent of total exports in 1998-99, when agriculture took the first place with 26.75 per cent. The years 1999 and 2000 witnessed remarkable growth, a garment industry 'boom'. In 2000-2001, exports of garments peaked at almost 30 per cent of total exports, becoming the largest source of foreign exchange earnings. This proved the potential of the industry, but garment exports decreased markedly in the following years due to the sanctions. Had sanctions not been imposed, garment manufacturing would have continued to be the largest foreign exchange earner.

**Table 1. Percentage Share of Major Exports by Sector**

Budget Year	Agriculture	Fish	Wood	Gas	Base Metals	Sugar	Garments	Other
1998-99	26.75	13.86	13.45	0.07	1.09	0.14	6.98	37.66
'99-2000	17.59	8.96	11.40	0.35	3.22	0.00	9.81	48.67
2000-01	17.90	7.32	7.08	8.72	2.54	0.04	29.72	26.68
2001-02	17.16	5.02	11.60	24.79	1.68	0.09	17.43	22.23
2002-03	13.75	5.59	9.86	29.66	1.42	0.15	14.91	24.66
2003-04	16.19	6.82	15.11	24.63	2.41	0.05	13.92	20.87
2004-05*	12.55	7.98	17.35	21.49	4.02	-	9.55	27.07

\* April 2004 to January 2005.  
Source: *Statistical Year Book 2004*.

The factors driving the Myanmar garment sector's growth were comparatively low wages, set-up costs lower than in other countries and a quota offered by the EU on all items and by the USA on six items under the Multi-Fibre Arrangement (MFA). Myanmar garment exports are based on cutting, making, and packing (CMP) ar-

rangements. The CMP system is subsumed under TIP (temporary inward processing) and is entitled to tax exemption. CMP rates depend on the types of products. Nearly all (95-99 per cent) of raw materials, apart from packaging, are imported. Overseas buyers do everything but production: they find customers, design clothes with detailed specifi-

\* A Myanmar national, the author is a master's degree student in regional integration at the Asia-Europe Institute, University of Malaya, Malaysia.



**Table 2. Number of Garment Firms with Exports**

Year	State-Owned	Foreign Joint Ventures		100% Foreign Firms	Domestic Private Firms	Total
		With MTI/UMEHL*	With Private			
1993	1	6	0	0	5	12
1994	1	8	1	0	15	25
1995	1	9	1	4	28	43
1996	1	9	1	5	55	71
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
2005-2006	0	4	4	22	112	142

Excludes firms that exported US\$10,000 or less in total for 1993-2004.

\* Myanmar Textile Industry/Union of Myanmar Economic Holding Limited

Source: 1993-2004 data from Toshihiro Kudo (2005), *The Impact of United States Sanctions on the Myanmar Garment Industry*, IDE, JETRO, Discussion Paper No. 42. 2005-06 from MGMA unpublished data.

cations and procure and supply raw materials to apparel plants in Myanmar.

The total number of garment factories, including subcontractors, in 2005-2006 is 165,<sup>1</sup> of which 142 produce for export. Among the latter there are eight joint ventures, 22 completely foreign-financed firms and 112 domestic private firms. The foreign-financed firms produce high-end and high-priced products. The joint ventures produce a variety of quality and high-priced goods. Local firms produce both high quality and low priced products generally.

Table 2 shows a significant increase in the number of private firms entering the international market after 1996, but many of them collapsed after sanctions were imposed. Despite the large number of private firms, their export capacity is lower than that of foreign-financed firms. Foreign and joint venture firms have higher productivity. They have more experience, fewer financial constraints on investment in technologically advanced machines and better marketing

networks. Job-hopping or staff turnover is 2 per cent for foreign-financed firms, 5 per cent for joint ventures and 10 per cent for and local firms.<sup>2</sup>

The major foreign investors in Myanmar garment manufacturing are Korea, Taiwan and Hong Kong. The United States was the largest buyer of Myanmar garments. It imported US\$185.7 million in 1999 and more than doubled that in 2000 (US\$ 403.5 million). The UK is the second largest buyer, followed by Germany. Intraregional garment exports are not significant. According to industry sources, exports to Japan are expected to grow. In 2002, garment exports to Japan were only US\$9.42 million, but they increased significantly in the next three years to US\$31.3 million, US\$44.3 million and US\$52.6 million. They are expected to top US\$60 million for 2006. Because of the potential of the Japanese market, there is now discussion of obtaining permission to import bulk raw materials through border areas in order to cut the transportation time and be able to export promptly to Japan.<sup>3</sup>

1. U Myint Soe, Myanmar Garment Manufacturing Association (MGMA).

2. *Ibid.*

---

## **Garment Labour Force**

---

Because garment manufacturing is labour-intensive, it is important to study the social impact of the Myanmar garment industry. There were about 400 garment firms or factories (including subcontractors not directly related to exports) at the peak of the industry around 2000-2001. Total employment in the garment industry was estimated at about 135,000 in 2001.<sup>4</sup>

Being affected by US sanctions, many firms

stopped production, dismissed workers or went bankrupt. About 160 factories completely shut down. The number of garment firms or factories decreased to about 180 by mid-2005, and it was estimated that about 80,000 workers (70,000 female and 10,000 male) were laid off. Total employment was estimated to be 55,000 to 60,000 in 2004 (Kudo 2005:13) and it remained more or less same in 2005 (MGMA).

---

## **Age and Gender**

---

As in other economies, the garment industry in Myanmar is predominantly made up of young women working in the lower tier of employment as helpers and sewing machine operators. According to surveys, women constitute 85-90 per cent of the workforce in the Myanmar garment sector. The small percentage of male workers are typically supervisors and quality controllers.

In the garment industry workforce, 70 per

cent of workers are aged 22 years or younger. The major age group working in the industry is in the range of 18 to 25, accounting for 73 per cent of total employees.

Seventy per cent of the workforce are unmarried, mainly young women. There are married women who work in the industry to support their families. Due to the ever rising cost of living in Myanmar, women tend to work even after they are married.

---

## **Level of Education**

---

Levels of education among garment workers vary. Forty-three per cent have attained secondary school and 35 per cent higher school; 16 per cent are currently university students (distance education) and 6 per cent are graduates. It is evident that the opportunity for women to earn income serves as an incentive to leave school early and to join either the rural or urban

workforce to supplement the incomes of their families.

Although educational attainment is not taken directly into account for promotion and wage increases, a certain level of education is considered preferable and necessary for improving the capacity of workers to absorb technology.

---

## **Reasons for Choosing to Work in Garment Industry**

---

People shifted from rural to urban areas expecting to have a better life. Workers migrated to urban areas, where there are more job opportunities. They cannot find jobs in

their native towns and villages, and some workers still want to do further study (such as university distance education) while they are working. Eighty per cent of workers

3. *Kumuda Weekly*, No. 219, 12 May 2006.

4. U Myint Soe.

migrated from rural areas; 67 per cent of them came straight to work in the garment industry, while 13 per cent came through suburban areas where they studied or worked for some time. The factors that drove workers from rural to urban areas were industrial development in urban areas (not only garment manufacturing but also others such as production of cold drinks, foodstuffs etc.) and the declining economy in rural areas. Workers not only from villages but also from small towns where there are limited job opportunities have moved into Yangon's industrial sector. The rural-urban differential is a key factor explaining the high mobility.

Although a variety of reasons are given for choosing garment work, the author's quantitative survey showed that 70 per cent of respondents entered garment work when they were younger than 20 and unmarried. The majority are migrants: 78 per cent of respondents were born in rural areas. Some may have migrated to semi-urban and urban areas earlier, but a significant proportion moved in association with

starting garment factory work.

Monthly wages in the industry, as found by the author's survey in May 2006, were:

- a) Unskilled worker, US\$17-22
- b) Semi-skilled worker, US\$22-27
- c) Skilled worker, US\$27-35
- d) Clerical and administrative staff, US\$30-45 (mostly same as skilled worker)
- e) Technical staff, US\$30-45 (mostly same as skilled worker)
- f) Junior managerial, US\$45-60
- g) Senior managerial, US\$60 and over

The average hourly wage is about US\$0.08 and has remained unchanged since 2000. Almost all workers employed for a year or more in the same factory receive an end of year (new year) bonus. In addition, garment workers are given an attendance bonus (for perfect attendance), efficiency bonus (for completing the production target on time) and a production bonus (for meeting the targets). The survey revealed no gender discrimination; equal work is paid equally.

### Working hours and conditions

---

Usually work is eight to ten hours per day, six days per week. Overtime varies according to the factory. If there are very tight orders, workers need to work overtime. Sometimes in busy seasons, they are forced to work 28 days a month. Taking

leave or casual leave on weekdays/working days can be considered on a case by case basis with certain deductions from bonuses. In some exceptional cases, workers can take only three days' leave per annum.

### Future Intentions

---

Of the current labour force of the garment industry, 80 per cent of respondents would like to change their jobs and 60 per cent would like to work abroad. Workers appear to think that working abroad is the only way to earn more. About one-fifth (18 per cent) are expecting promotion because they have been working in this industry/factory for more than five years. Sixty-seven per cent do not intend to visit their home town in the coming year, and three-fourths

of them have no intention of living there in the future because they believe there is no better life in their home town or village.

Although garment work is hard, 82 per cent of workers who responded came to the industry because they want to gain experience that can be used in the future. Also, it is easy for them to find jobs or move to another factory after they have gained some experience. Most of them do not want to

work for a long time in the industry and expressed an intention of doing business on their own. (Two hundred and fifty workers were surveyed from 10 factories—two 100% foreign-financed firms, four joint ventures and four locally owned firms.)

In summary, labour shifting in Myanmar's garment industry can be categorised under three main motives. Workers' moving from rural to urban areas can be attributed to rural poverty and young people looking for better opportunities. Then the workers see opportunities for better wages, overtime and incentives within the industry and they

shift from one factory to another. A further shift is a regional shift (from Yangon to the Thai border) due to being laid off as a result of sanctions imposed by the US. They get higher wages and then seek other opportunities in that area. It was found that workers shifted for better wages, but sometimes they shifted even for the same wages because they were tired of the current workplace and wanted to try new jobs. In some rare cases, workers who shifted from rural areas to urban industry and then shifted to another industry, found themselves unfit for both industries and went back to their home towns.

### **Major Findings and Constraints**

Constraints currently faced by the Myanmar garment manufacturing sector are:

**Formalities and delays in document processing.** Import and export documentation is unnecessarily time-consuming. Since garment orders are based on the trendy and seasonal, it is very important to make shipments on time. Delays in importing raw materials stop the whole process because garments are produced in a streamlined process. Sometimes workers are forced to work overtime to finish orders because of the late arrival of raw materials or are paid for no work while waiting for import permit document processing.

**Shortage of electricity.** This hurts both employers and workers. An unreliable electricity supply forces factories to use generators instead. The cost of petrol for the generators adds a significant amount to production costs. Wages cannot be raised because the money goes to pay for petrol. The electricity infrastructure has not been developed in line with the expansion of industry. According to an industry survey, 25-40 per cent of operating costs (almost the same amount as wages) goes for petrol. Petrol-fired generators cost 10 times as much as ordinary electricity.

**Lack of banking and financing facilities.**

Letters of credit cannot be used as a credit guarantee in Myanmar. This makes garment manufacturers only conduct CMP business by importing raw materials for a particular order and restricts the garment industry to manufacturing/processing service. Financing or funding agencies could support manufacturers in importing raw material on their own accounts and make raw materials available domestically. If this could be done in one way or another, the lead time for imports could be reduced, orders could be completed on time, and transportation cost for multiple single shipments for a particular order would be avoided. That would reduce the total production cost and improve market competitiveness at a lower price with a higher profit margin.

Similarly, the garment industry could support related local raw material firms to grow up along with it. But this is not happening in the Myanmar garment industry at present due to a lack of cooperation and the inefficient operations of financial institutions. Raw material costs are higher than in other countries. This is one of the extra charges. Therefore the problem finally comes straight to labour cost as the only

way out. Under these circumstances, the garment industry has to find ways to maintain labour costs at the present or an even lower level.

Currently Myanmar faces a lack of skilled labour in the garment industry. Garment manufacturing wages seem to be among the lowest in the world. Therefore, workers are demanding that the industry increase their real incomes. In other words, there is a chronic problem for both the industry, which is threatened by price competitiveness in the international market, and its labour force, which has been alarmed by high domestic inflation. As a result, workers shift from one place to another. Even within the industry, workers are moving around to where they can get higher wages.

### **Conclusion**

---

Myanmar's garment industry had been in a position of rapid growth and had proved its potential and capability even in infancy, but the success of the garment sector did not last long. While other developing countries are concentrating on the US market, Myanmar should seek a way into emerging non-US markets. If non-US markets can compensate for the loss caused by sanctions, Myanmar's garment manufacturing will survive. Since the Cold War ended, the world economy has been entering into an uncharted area of infinite competition. Now, quotas are no longer applicable, so developing countries become more and more competitive and

In this industry, the wages are not significantly different from one factory to another, but even small differences make labour move. Another reason for workers' shifting is to work in the garment factories at the Thai border (Mae-Sot), where the wages are more than double. The factories in Myanmar are not able to pay as much as the Thai factories. Coinciding with the laying off of workers (both skilled and unskilled) from factories shut down after 2003 by US sanctions, the growth of the Thai garment industry caused labour mobility to the Thai border area. A lack of skilled labour makes it difficult for factories to finish production on time. Learning by doing or training usually takes two to three months before a worker becomes skilled. Labour contracts are not binding in Myanmar, which restricts control over labour mobility.

are trying to meet the growing demand. How can Myanmar's garment industry survive in this competitive market? It is recommended to both government and the private sector to take urgent measures to: initiate training centres to maintain skilled labour; from the government side to invest in infrastructure (especially electricity supply and telecommunications); speed up document processing and skip unnecessary processes; implement a policy for easy access to loans, especially for local firms; create wage standardisation to avoid workers job-hopping; support financing and find a way to import bulk raw materials.

# The Garment Industry in the Lao PDR

Syviengxay Oraboune\*

## *Introduction*

---

The garment industry is an important economic sector in the Lao PDR. It attracts foreign direct investment (FDI); the majority of garment factories are either wholly foreign owned or joint ventures. Since the announcement of an open market policy in 1986, the issuing of FDI policy in 1988 and the enactment of the FDI Promotion Law in 1994, FDI inflow has increased dramatically, and the garment sector is one of the major areas of investment. It has significantly contributed to job creation and income generation for local people. It has also been identified as an important source of technology transfer and skill development of the Lao labour force. Since 1995, the garment sector has been among the top three industries in value of exports, making it an important source of national income.

The garment industry in the Lao PDR contributes significant income to rural women workers who migrate to Vientiane and other urban areas seeking work. This income helps those women's families to overcome poverty by financing their consumption and their production.

However, most garment manufacturers in the Lao PDR are basically subcontractors who can offer only cut-make-trim (CMT) with no backward linkages to fabrics and accessories. Most of their exports rely on the general system of preferences (GSP), which is a main factor for FDI inflow into this sector. Most garment manufacturers

do not provide design, product development, marketing, sourcing, financing or procurement functions or services. Although the garment industry can create many jobs for local people, especially women who mostly come from rural areas, most of them are unskilled jobs, which pay only a small wage. In comparison to other developing countries, the investment policies of the country are insufficiently attractive.

Most garment factories are located in urban areas, especially in Vientiane, but most of the workers are women from rural areas who have to migrate to city areas to work, which creates many problems for those women, including their living conditions in dormitories, working conditions and rules, health and various social impacts.

This paper aims to analyse the current situation of the garment industry in the Lao PDR in order to discuss how significantly the garment sector contributes to the socio-economic development of the country, especially through export development. As well, the paper describes some critical issues and bottlenecks for this sector, including other negative social impacts. Finally, the paper provides some recommendations to ensure that the development of garment industry exports contributes fully to poverty reduction, stable income for the people and sustainable development of the country as a whole.

\* Deputy Chief, Policy Analysis division, National Economic Research Institute, Committee for Planning and Investment, Lao PDR.

## 1. Significance of the Garment Industry for National Economy

Since the emergence of the garment industry in the Lao PDR in the mid-1990s, it has offered thousand of jobs to local people and created income opportunities, especially for women. The value of gar-

ment exports contributes greatly to the total exports of the country. The attraction of GSP market access and low labour costs has induced FDI inflow into this sector.

### 1.1. The Garment Industry and Employment and Poverty

At present there are only 57 garment factories in the Lao PDR, which employ approximately 22,000 to 23,000 workers (see Table 1). The number of workers increased gradually from 1998 to 2004. But due to two factories closing in early 2005, the number of workers in the sector dropped to 22,401 as of January 2005. However, two more FDI garment factories opened later in 2005.

This growing industry has contributed significant stable income opportunities to local people, especially young women.<sup>1</sup> According to a survey in 2004, the majority

of garment workers are between 16 years and 30 years old (Table 2), and most of them earn from 300,000 kip up to 1,000,000 kip (about US\$30-100) per month. According to a survey, most of them send 100,000-700,000 kip to their home towns (parents) in rural areas (Table 3).

Most garment workers are women from rural areas. Usually they are unskilled and are trained on the job directly after admission to the factory. Therefore, they benefit not only from income opportunities but also from skill development provided by the employers. As well, there is sometimes training for local workers provided by interna-

**Table 1. Workers in Garment Industry**

Year	Number	Change (%)
1998	17,200	
1999	18,000	4.65
2000	19,000	5.56
2001	20,000	5.26
2002	21,462	7.31
2003	23,846	11.11
2004	26,000	9.03
2005*	22,401	-13.84

\* January 2005

Sources: Lao National Chamber of Commerce and Industry, Association of the Lao Garment Industry.

**Table 2. Garment Workers' Ages**

Age	Number	%
<16	1	0.88
16-20	38	33.63
21-25	35	30.97
26-30	30	26.55
>30	6	5.31
Unknown	3	2.65
Total	113	100

Source: Interview with 113 garment workers, 2004.

1. A Study on Improving Farmer Family Income of NERI/UNDP, 2005, surveyed four villages from which young villagers migrated into urban areas including Vientiane, Savannakhet and Pakse; most were females who mostly found jobs in the garment industry. 1) Thong Lum village, Louangprabang: 18 young people migrated to work in Vientiane, of whom 11 were females working in the garment industry and seven males working in construction; 2) Phongvan village, Louangprabang: nine young people migrated to Vientiane, of whom four were females working in the garment industry and five males working in construction; 3) Dindam village, Xiengkhouang province: eight young people migrated to Vientiane, seven of them females working in garment factories and one male working in construction; 4) Houysan village, Savannakhet province: 20 young people migrated to urban areas including Vientiane, Savannakhet and Pakse, 15 of them females working in garment factories, as housemaids or in shops.

tional donors such as SIDA, JICA,

UNIDO, ILO and the International Trade Centre on product costing, line supervision, marketing and sourcing.

**Table 3. Remittances by Garment Workers**

Amount (kip)	Number	%
100,000-300,000	48	42.48
300,000-500,00	19	16.81
500,000-700,000	10	8.85
Other	0	0
Unknown	36	31.86
Total	113	100

Source: Interview with 113 garment workers, 2004.

Although garment industry wages are not very high, garment workers can remit earnings to their families. Given that the national poverty line in rural areas is 82,000 kip a month, their earnings are enough not only for their own consumption, but can often also feed their whole family. Therefore, the garment sector should be considered as important for poverty alleviation in the country.

### 1.2. The Garment Industry and Exports

Out of 57 garment manufacturers, there are 55 export-oriented and two domestic-oriented factories. They have a production capacity of 3.64 million dozens of apparel per annum. Garment exports make up an average of about 30 per cent of Laos' total commodity exports. Apparel exports jumped by nearly 80 per cent in the first half of 2005, as compared to the same period of the previous year, due to more orders for knitted products (Xaybandith Raspone 2005).

ference may derive from the informal export of Lao textiles in the form of gifts to relatives in foreign countries (Syviengxay Oraboune 2005). Almost 92 per cent of Laos' apparel exports are shipped to the European Union. The remainder goes to the United States (3 per cent), Canada (3 per cent), Norway (1.23 per cent), Japan (0.72 per cent) and Australia (0.13 per cent).

There are differences between the apparel trade statistics compiled by the Ministry of Commerce (MoC) and by the importing countries. The total of apparel exports for 2003 was about US\$87 million as reported by the MoC, versus US\$133 million based on import statistics reported by major importing countries. One reason for this dif-

In 2004, Laos' garments exports were made up of approximately 44 per cent knits and 56 per cent woven products. Five product types<sup>2</sup> make up 76 per cent of Laos' apparel exports. Furthermore, garment exports are significant in total export value although the industry's employed workforce is only about 2 per cent of the total, while garment exports accounts for about 30 per cent of total export value.

### 1.3. The Garment Industry and FDI

Among 13 leading sectors that receive FDI, garments (including textiles) ranks ninth, with 91 projects and total investment value of about US\$88 million (1988-2002—see Table 4). In 2004, the total value of FDI in garment manufacturing accounted for

US\$3.1 million, or 0.61% of total FDI. At present, out of 57 garment factories, 26 are FDI (46 per cent), 11 are joint ventures (19 per cent), and 20 are local enterprises (35 per cent). FDI and joint ventures account for about two-thirds of all garment factories

2. HS codes 6109, 6110, 6203, 6204 and 6205—respectively T-shirts, singlets and other vests, knitted or crocheted; jerseys, pullovers, cardigans, etc, knitted or crocheted; men's suits, jackets, trousers etc. and shorts; women's suits, jackets, dresses skirts etc. & shorts; and men's shirts.



Sector	Pro-jects	Cost (US\$)
Electric Power	7	4,582,000,000
Telecom & Transport	17	638,427,047
Hotels & Tourism	52	630,273,792
Industry & Handicrafts	189	588,846,307
Wood Industry	37	166,115,632
Mining & Oil	33	137,992,764
Agribusiness	94	130,155,674
Services	181	101,223,619
Textiles & Garments	91	87,688,700
Banking & Insurance	12	83,800,000
Trade	132	72,581,913
Construction	38	63,762,466
Consultancy	44	8,590,072
<b>Total</b>	<b>927</b>	<b>7,291,457,986</b>

For period 7 December 1988 to 27 March 2002.  
Source: Committee for Planning and Investment (CPI), 2003.

in the Lao PDR and have about fourth-fifths of garment production capacity.

FDI and joint venture garment factories employ more than two-thirds of all garment workers and most garment machinery. There are also 39 small factories that support the bigger export-oriented factories (mainly domestic) as subcontractors.

Table 5 shows that 37 large FDI and joint venture factories employed more than 17,000 workers in 2005, about 79 per cent of all garment workers. Domestic garment manufacturers can create about 2,000 more jobs through small subcontractor factories with a production capacity of about 9.5 million pieces per year. The FDI and joint venture garment factories do not employ any small factories as subcontractors, but they own more than 11,000 machines with a total production capacity of more than 34 million pieces per year, or about 79 per cent of the total production capacity of the garment industry in the country.

Therefore, with competitively low labour costs and GSP market access as an LDC, the garment industry of Laos can attract some

	FDI	Joint Venture	Lao-owned	Total
Number of factories	26	11	20	57
Percentage	46	19	35	100
Capacity (pieces/year)	25,215,908	9,073,700	9,413,796	43,703,404
Capacity (dozens/year)	2,101,326	756,142	784,483	3,641,950
Percentage	58	21	21	100
Employees	11,813	5,420	4,631	21,864
Percentage	54	25	21	100
Machines	8,291	3,125	3,099	14,515
Percentage	57	22	21	100
Number of small factories	0	0	39	39
Employees	0	0	1,967	1,967

Source: Xaybandith Raspone (2005).

FDI into the country. However, most garment factories, including foreign-owned and more than 90 per cent of domestic, are located in Vientiane and a lesser number in Savannakhet province. Therefore, special economic zones like Savan-Seno have been considered a significant mechanism to attract FDI into rural areas and spread the industry into other provinces, ensuring that rural people can benefit from garment FDI supporting rural and regional development.

FDI in the garment sector accounted for less than 2 per cent of total FDI between 1988 and 2002, but this export-oriented garment investment accounted for more

**Table 6. Share of FDI and Exports in Top 3 Sectors**

Sector	Projects	% of invest.	% of exports
Electricity	7	62.84	21.1
Garments	91	1.20	30.6
Timber, furniture	37	2.28	22.4

Source: CPI, 2003.

than 30 per cent of total export value between 1995 and 2002. It ranked higher even than the electricity and wood sectors, which received more FDI inflow (Table 6).

## **2. Problems and Constraints of the Lao Garment Industry**

The garment industry plays a significant role in the economic development of the country. However, because of various constraints and problems, the industry has not devel-

oped to its full potential. The main problems derive from factors including productive structure, labour issues, the business environment and social impacts.

### **2.1. Productive Structure**

Since most Lao garment factories are located in urban areas, the textile and apparel industry has minimal backward linkages, and the structure is mainly that of garment manufacturing with minimal support in processing, such as embroidery, printing and wet garment processing.

There are no materials suppliers in the Lao PDR, and thus almost all materials, from fabrics to trims, are imported. Most Lao garment manufacturers are subcontractors or subsidiaries of bigger established manufacturers located outside the Lao PDR, so there is little need for them to seek materials suppliers; most procurement is usually done by their headquarters or customers. This means that Laos mainly receives only wages from the garment industry. Therefore, although garments are a leading export sector, imports by the garment sector are also high.

There is minimal or no incoming inspection conducted on materials (Xaybandith Raspone 2005). Sampling is usually done by the headquarters or customers. Cutting is plagued by low efficiency, inaccuracies and low productivity. Sewing skills need to be improved, because there are reports of numerous reworkings required at each stage of inspection. Factories usually iron and check size specifications simultaneously or one after the other. Although there are a few companies providing packaging materials, there is still a need to import them. Great attention is given to in-line quality control, with inspection of 80 per cent of items and end of line inspection, with 100 per cent.

Testing and inspection are not yet regarded as important since most garment manufacturers are not involved in the procurement of materials. Because the majority of materials and fabrics are imported, problems

encountered centre mainly on delays and multiple checkpoints imposed by Laos

Customs. There seems to be a shortage of storage space in factories.

## 2.2. Labour Issues

---

Garment factories do not face many problems in recruiting production workers, but it is almost impossible to find locals who have experience and relevant training as merchandising and management staff in the textile and clothing sector. There are mostly unskilled workers, on whose training most employers have to spend more. Most garment workers are poorly educated, about 54 per cent having completed only primary school and 45 per cent having completed secondary school. Only about 3 per cent have a college or university degree. A small percentage are either illiterate or have not completed any formal schooling.

The minimum wage in the Laos textile and clothing (T&C) industry is only US\$0.125 per hour (US\$1 per eight-hour day), among the lowest in the region. By a 1994 law, T&C work is limited to 48 hours per week and a maximum of 30 hours' overtime per month. However, this figure is often exceeded. According to the Association of the Lao Garment Industry (ALGI), including overtime, workers are able to earn approximately US\$40 per month. Although the Lao PDR has one of the lowest wage rates per hour, this does not translate into the lowest operational cost because of lower produc-

tivity (Xaybandith Raspone 2005).

Some garment factories have several members of their production management who are from countries such as China, Pakistan, the Philippines, Thailand and Vietnam. The Laos government does not place any restrictions on employment of foreigners.

Eighty per cent of the production workers are from rural areas, and most of them find it difficult to adapt to the structured and disciplined factory life after their free and easy life in rural areas. Companies must be ready to orient them to factory work. Lao workers in general are diligent and not confrontational. Nevertheless, according to garment employers in Vientiane, one of their problems is a shortage of labour during the rice cultivation season because many workers who are from rural areas, especially migrants from other provinces, go back home to help their families with cultivation. This seems to be a central difficulty facing most garment factories in the Lao PDR.<sup>3</sup>

No training institutes cater specifically for the textile and apparel industry. The courses taught in the formal education system do not prepare graduates for the industry.

## 2.3. Overall Business Environment

---

Because FDI is the source of most investment in the garment industry, the investment policy must be attractive. A 2005 revision of the law on FDI provided a number of incentives to foreign investors, including exemption from import tax on raw materials, relaxation of some other taxes concerning business performance, the promotion of special economic zones etc.

However, these incentives are not attractive enough to FDI, because businesses require more competitiveness, including adequate infrastructure at a competitive cost. This is a reason that most garment factories are located in city areas.

Most of the export garment manufacturers rely on their customers to provide designs,

3. Interview in 10 garment factories in Vientiane, 2003.

product specifications and materials. There are few efforts at marketing, advertising and/or branding at national, industry or corporate level. Market information on fashion design and business is not easily available. Sample making and product development are an issue because most factories do not have a direct relationship with or access to the materials market. As subsidiaries of more established factories, there is very little need for them to market their products, but rather to market their production capacity and capability, which are considered below that of competitors. Relations between Lao garment manufacturers and their customers are usually those of a contract manufacturer with little input on design, product development or materials sourcing (Xaybandith Raspone 2005).

Because most garment manufacturing is for export, transportation costs are a critical issues for a landlocked country like the Lao

PDR. According to the ALGI, most garment exports are routed through Bangkok; it costs approximately US\$800 to move a 40-foot (12.2 m) container from Thai border to Bangkok port, which seems prohibitive (*ibid.*). Therefore, the cost of transportation remains an obstacle to the export of Lao garment products even though there are now adequate export procedures. The lack of warehouses, facilities for loading goods and good roads must also be taken into account. Most of the factories are located in Vientiane because support facilities for business are better than in other areas of the country.

Finance is also a constraint on the garment industry, because most Lao garment manufacturers, subcontractors and exporters do not receive any financial support from the government (*ibid.*). There are only bank services provided by commercial banks such as letters of credit, short-term loans etc.

#### 2.4. Other Social Impacts

Because most garment factories are in urban areas, mainly Vientiane and Savannakhet province, while the majority of garment workers are women from rural areas, they have to leave their home towns and migrate to urban areas where the factories are located. A shortage of labour seems to be common in many rural areas because many young people leave their

homes seeking jobs in urban areas. This migration benefits the urban economy by supplying a workforce, but it also requires many social services and a social security system.

According to a survey, women's migration makes them vulnerable to social problems including rape, unwanted pregnancy, HIV/

<b>Problem</b>	<b>Garment sector (%)</b>	<b>Services sector (%)</b>
Boyfriends take them out but don't take them back to dormitory	40.7	0.0
Loss of virginity, unwanted pregnancy	20.4	28.5
Sexual harassment	16.7	57.1
Other	22.2	14.3
Total informants	54	21
Source: Sirivanh Khonthapane 2002.		

AIDS and other sexual diseases etc. (Sirivanh Khonthapane 2002). Table 7 lists

problems that migrant women workers in Vientiane report facing

### 3. SWOT Analysis of Garment Industry in Lao PDR

Based on previous research, the current strengths, weaknesses, opportunities and threats (SWOT) of the Lao garment indus-

try can be drawn in an attempt to support the export sector's development (Xaybandith Raspone 2005).

#### 3.1. Strengths

The Lao PDR has potential for developing the garment industry. Basically, this derives from low production costs and relevant policies, such as regional development, that ensure stability. Some strengths of the garment sector are shared with other sectors:

- membership of the Association of South East Asian Nations (ASEAN), bringing benefits from various programmes in-

- cluding AFTA, AISP-GSP etc.;
- political stability;
- low labour costs;
- relatively low electricity cost (US\$0.06/kwhr) and water cost (US\$0.015/m<sup>3</sup>);
- diligent workers with good attitude;
- no labour problems; good relationship between management and workforce;
- no restrictions on expatriates.

#### 3.2. Weaknesses

However, as in other sectors, there are constraints and weaknesses for the industry:

- a lack of highly skilled sewers and of training providers;
- inadequate banking services;
- a lack of domestic raw materials;
- a lack of technical and management personnel;
- high transit costs to seaport because Laos is landlocked;
- low literacy rate (despite primary education);
- low productivity;
- low marketing and branding skills;
- a lack of training institutions to provide T&C technical knowledge;
- average labour turnover of 3-5 per cent per year;

- a lack of formalised knowledge transfer from expatriates;
- inadequate education system, courses not aligned with industry needs;
- absence of sourcing information and skills;
- absence of dissemination of global market information;
- a lack of independent capacity building, and ALGI's low lobbying capacity;
- minimal direct relationship with retailers from the quad countries (Canada, EU, Japan, USA);
- inadequate knowledge about competitors;
- over-reliance of subcontractors or subsidiaries on parent companies in Thailand or Hong Kong.

#### 3.3. Opportunities

The following can be considered as opportunities for the garment industry to strengthen its exports and development:

- developing skills across the board through the development of T&C industry;

- getting new management and technical staff;
- product diversification;
- new job creation;
- NTR (normal trade relations) status for

- market access to the USA;
- T&C industry creating jobs and wealth;
- shipping products to major world markets;
- GSP benefits for exports to Canada, Australia, Japan, South Korea and EU;
- exploiting traditional silk and natural dyes for higher fashion products;
- technology and knowledge transfer from the more developed T&C industry in

- ASEAN and neighbouring countries;
- drawing in foreign investors through a more attractive investment environment;
- encouraging foreign investors to transfer knowledge and skills via formalised training agreements;
- encouraging investors to build infrastructure through dialogue on expansion plans and special economic zones.

### **3.4. Threats**

However, taking the country's demography into account, many challenges exist for the development of the garment industry and the country as a whole. The following issues might be considered as threats:

- the country's small population, which makes it hard to compete with neighbouring countries like China and Viet-

- nam that have a massive labour market;
- approval from various government agencies for imports of equipment and spare parts requiring too much time;
- inadequate banking services;
- bureaucratic, slow and passive public service related to T&C;
- many highly skilled competitors.

## **4. Sustaining Long-Term Growth and Structural Change**

Through the Association of the Lao Garment Industry, the Lao Chamber of Commerce and Industry and the MoC, most current exporters receive fairly good assistance in exporting their finished garment products. In general they don't have many problems in identifying market opportunities, but a major problem is to improve the sourcing capability and to find alternate ways to import fabrics from neighbouring countries, which at present they have to be imported from more distant countries (China, Korea, Thailand).

The improvement of domestic production to supply fabrics might be considered important, but since Laos does not have the infrastructure for this, it still has to import most of the raw material and accessories. Only cotton fabrics are supplied domestically, in small amounts and of a quality inadequate to meet international requirements. There are few cotton companies able to export their products into the only market that exists at present, Japan. Al-

though those companies are not members of ALGI but of the handicraft association, their operations are mass production rather than handicraft.

On the other hand, the current exporters need to comply with the volume and quality demands of the buyers while operating with insufficient and unskilled workers.

There are many companies, members of ALGI (especially small and medium factories), that have potential to become exporters in the near future. The most important thing to develop their export potential is to raise the quality and skill of their workers to meet regional or international standards. In other words, they will need to prepare to move from CMT to free on board (FOB) or direct dealing provider (DDP) status, which will gradually improve the capacity of the garment industry of the country and ensure sustainable development in this sector.

The objective in the garment sector is to

raise capacity for future exports. The country target is to increase export growth to 5-10 per cent a year by 2010. This will require movement away from the low value-added woven garment sector towards higher value-added knit, cut and sew garments and knitwear garments. The US market is also opening, and more opportunities are ahead. Employment in the industry will then increase as foreseen in national socio-economic planning.

To achieve the above goals, the following considerations need to be addressed.

**Develop a comprehensive value chain in the garment industry.** Under supervision of the Lao National Chamber of Commerce and Industry and with support from the MoC, the ALGI plays a strong role in efforts to develop the garment industry. Currently the Lao textile and apparel industry basically resides only in the apparel-manufacturing segment. Therefore, in order to further develop the garment sector, it will be necessary to cluster the industry into a comprehensive structure with full linkage to backward sectors (Xaybandith Raspone 2005).

**Improve information systems.** One of the most important factors for the garment sector is market information, especially on export markets and market access, which should be easily available. It could be provided by and through ALGI, the Lao Trade Promotion Centre, Department of Foreign Trade (MoC) and foreign assistance projects. Establishment or improvement of the information systems of those institutions is essential for improving trade information for this sector.

Enhanced access to information technologies can contribute to strengthening the competitiveness of the garment sector by improving information and communication and optimising production processes where timing and up-to-date information are important determinants of competitiveness.

A software-based methodological tool called FiT, developed by the International Trade Centre, could also be an excellent instrument for benchmarking. It could help the manufacturers to have good data and information on their own businesses as well as those of competitors.

In consultation with the manufacturers, we have identified a need for a bulletin, either in hard or soft format, circulating among all the member of the ALGI in order to update T&C news in the region and in the global market. The ALGI should also consider having its own data and statistics unit and/or a web site to provide information about its member and activities of the association.

**Improve the system of financial support.** Loans for garment factories are available through various financial institutions. However, the critical issue is how to ensure that funds are used effectively in order to be assured of repayment. A current constraint is that most loans focus on production and operations without considering the development side. Hence loans are commonly not profitable for the lender because of the short period. Subsequently, exporters still have difficulties accessing loans from public and commercial banks, which have high interest rates and high collateral requirements. This situation leads to low capacity of exporters to expand their businesses.

Hence, establishment or improvement of loan management assistance for garment factories should be considered in order to ensure effective trade finance support. One possibility is to request support under the Trade Integration Mechanism introduced by the IMF to assist member countries in meeting balance of payments shortfalls that might result from multilateral trade liberalisation.

**Improve the education and training system to improve skills of garment workers.** As mentioned, the country is in need of skilled

garment workers. Thus there is a need to educate and train potential workers in subjects related to the industry such as product costing, line supervision, sourcing, merchandising, production processes, marketing, quality control and financial planning.

Therefore there is a need for a garment training centre managed by the ALGI with the help of international donors and inviting foreign experts to help in developing the competency of this sector. Assistance in the form of trade-related technical assistance and capacity building provided by the OECD and the WTO could also be an option.

## **Conclusion**

The garment industry is important in the Lao PDR, one of the major export industries of the country and the creator of thousands of job opportunities, especially for rural women. However, in comparison with neighbouring countries, the industry has many constraints and weaknesses, as identified above, which restrict the development of the sector and the country as a whole. Therefore, in order to improve the competitiveness of this sector, various issues need to be addressed at all levels.

Measures at enterprise level might include benchmarking, meeting social requirements, training and recruitment, utilising e-business, developing sourcing and logistics capabilities, offering design and product development services and product and market diversification.

Measures at the industry level might include industry benchmarking, learning from the

**Improve quality standards in the garment sector to support the traceability of garment products of the country.** At present, most quality assurance issues for the garment industry in the Lao PDR are dealt with by foreign neighbours' organisations such as certification of production and quality SA-8000, ISO-9002 etc.

There is a need to upgrade garment manufacturers in Laos to obtain the above-mentioned certifications and with them better access to international markets, and therefore to encourage local enterprises to take the first steps toward quality assurance.

region, development of human capabilities, especially in production, regional cooperation at ASEAN level, centralised sourcing, missions, market expansion and diversification, supplies source expansion and evaluation and seeking funds from donor organisations to fund these projects.

Also to support the further development of the garment industry, especially through exports, the government might need to make changes regarding trade policy, trade facilitation, capacity building and other relevant issues.

Provision of a social security system for women garment workers is also needed in order to solve the social problems they face. Having a social security system and adequate provision of training as well as other social knowledge in the garment sector will ensure a sound environment for women workers and improve productivity.

## **Bibliography**

\_\_\_\_\_. 2005., *Study on Improving Farmer Family Income in Lao PDR*. Macroeconomics of Poverty Reduction Project. NERI/UNDP, Agrofood Consulting Co.

ASEAN Federation of Textile Exporters (AFTEX), [www.aftex.org](http://www.aftex.org).



- Association of Lao Garment Industry. 2005. *Garment Factory Directory*.
- IMF. 12 Jan 2005. *Lao People's Democratic Republic: Selected Issues and Statistical Appendix*.
- Imran Arshad. 2004. *Economic Theory, Transition & Alternatives: Applications to Lao PDR*. National Economic Research Institute, Committee for Planning and Investment.
- International Trade Centre. November 2005. *Export Potential Assessment in Lao PDR*.
- Ministry of Commerce. 2005. *Trade Statistics*.
- National Statistics Centre, CPI. 2005. *Third National Human Development Report*. Draft.
- Office of Industries and Office of Economics. 26 Jan 2004. *Textiles and Apparel: Assessment of the Competitiveness of Certain Foreign Suppliers to the U.S. Market*. US International Trade Commission
- Sirivanh Khonthapane. 2002. *Women's Migration into Vientiane Municipality*. NERI.
- Strategy Designer Team. 2005. *National Export Strategy*. Final draft. Lao Trade Promotion Centre, Ministry of Commerce.
- Syviengxay Oraboune. 2005. *National Export Strategy, Silk Handicraft Sector Strategy*. Final draft. LTPC, MOC.
- UNIDO. 2002. *The Textile and Garment Industry in Lao PDR*.
- World Bank Vientiane Office. November 2004. *Lao PDR Economic Monitor*.
- WTO. 2004. *Background Statistical Information with Respect to Trade in Textiles and Clothing*.
- Xaybandith Raspone. 2005. *National Export Strategy, Garment Sector Strategy*. Final draft. Lao Trade Promotion Centre, Ministry of Commerce.

# Sustaining Development through Garment Exports: The Case of Cambodia

Kum Kim and Seng Sovirak\*

The garment industry has contributed enormously to the development of Cambodia through job creation, income generation and foreign exchange earnings. Thanks to special privileges enjoyed by the least developed countries (LDCs) with per capita income less than US\$1000, the Cambodian garment manufacturing expanded further in 2005. A combination of preferential access to major markets, especially in the US and EU, and caps on the growth of imports from China ensured the continuation of the industry in LDCs such as Cambodia, Lesotho and Kenya (Rajah Rasiah, 2006). Cambodia's garment exports increased from US\$25 million in 1995 to

US\$2.2 billion in 2004 and accounted for 85 of total exports in 2004 (Hing Thoraxy, 2003; Rajah Rasiah, 2006).

The objective of this paper is to examine the sustainability and the development of Cambodia's garment industry in the post-MFA era. Part 1 will examine the significance of the garment industry for the national economy. Part 2 will examine the problems faced by garment firms in Cambodia. Part 3 will focus on the labour market. Part 4 looks at garment industry performance and technological capacity building. Part 5 focuses on sustaining long-term growth. Part 6 presents conclusions.

## 1. Significance of the Garment Industry for the National Economy

Cambodia's garment industry began to grow when Cambodia was granted most favoured nation status by the United States and signed a framework of cooperation agreement with the EU that allowed access to its markets under the Generalised System of Preferences (GSP). Over the past decade, Cambodia's garment industry has been the main source of economic growth and employment generation. Garment industry employment has risen from 18,000 in 1995 to 230,000 in 2003 (Table 1). This represents 3 per cent of total employment in Cambodia and 36 per cent of manufacturing employment.<sup>1</sup> Most of the workers are young women who migrated from poor rural areas to the capital Phnom Penh, where most garment manufacturing is located.

Year	Employment ('000)	No. of Factories
1995	18	20
1996	24	24
1997	82	67
1998	79	129
1999	96	152
2000	161	190
2001	187	185
2002	208	187
2003	234	197
2004	245	206

Source: Ministry of Commerce, Trade Department, extracted from Omar Bargawi (2005).

\* The authors, Cambodians, are master's degree students in regional integration at the Asia-Europe Institute, University of Malaya.

1. Based on data from the Cambodian National Institute of Statistics labour force survey.

	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
GDP	1.04	1.12	1.46	2.15	3.74	4.98	5.89	9.21	11.31	12.32	13.25	14.51
MVA	12.08	12.65	15.97	21.29	32.12	39.36	44.77	57.35	64.22	66.68	68.25	71.56
X	1.1	0.5	2.6	11.6	24.7	38.6	47.7	55.5	56.7	59	63.8	64.3
M	0.3	0.2	0.8	3.2	8.8	13	17.2	21.4	23.7	24.7	26.4	26.3

MVA = manufacturing value added. X = GSP exports. M = GSP imports.  
Source: Ministry of Commerce, Cambodia.

While garments already accounted for 12.1 per cent of manufacturing value added in 1993, the share rose remarkably to 32.1 per cent in 1997, 57.5 per cent in 2000 and a massive 71.6 per cent in 2004 (Table 2). Rapid expansion also raised the garment contribution to GDP from 1 per cent in 1993 to 3.7 per cent in 1997, 9.2 per cent in 2000 and 14.5 per cent in 2004. The Ministry of Commerce reported that

279,545 workers were directly employed by the garment industry in 2005. This dramatic growth was facilitated by GSP privileges, including the market openings in the EU and the United States.

Nearly all garment production is for export. Export-oriented garment manufacturing emerged in Cambodia after the restoration of peace and resumption of normal politi-

	2000	2001	2002	2003	2004	2005*	Total
Cambodia	1.20	2.70	3.28	1.86	3.10	5.80	17.94
China	0.60	1.50	3.20	5.80	19.70	22.80	53.60
Taiwan	8.90	3.00	3.32	1.00	4.40	2.20	22.82
HK	4.00	0.75	1.00	0.00	0.00	0.00	5.75
UK	3.90	1.50	0.90	0.00	1.50	0.00	7.80
USA	0.50	4.75	0.00	0.00	2.08	1.20	8.53
Malaysia	0.00	0.00	1.00	2.65	4.70	1.00	9.35
Singapore	1.80	0.00	0.00	1.50	1.50	2.00	6.80
Japan	0.20	0.00	0.00	0.00	0.00	0.00	0.20
S. Korea	2.20	1.00	0.90	1.95	3.00	6.90	15.95
France	1.00	0.00	0.00	0.00	0.00	0.00	1.00
Philippines	0.30	1.00	0.00	0.00	0.00	0.00	1.30
Canada	0.00	0.00	0.00	0.00	0.75	0.00	0.75
Total	24.60	16.20	15.60	14.76	40.73	41.90	153.79

\* Until 31 October.  
Source: Ministry of Industry, Cambodia.

cal and economic relation with the global community in the mid-1990s.<sup>2</sup> Investors from Hong Kong, China, South Korea and other countries were attracted to invest in Cambodia by its low production costs and its access to garment quotas. China had risen from being fairly insignificant in 2000 to become the largest investor in garment manufacturing by 2005 (Table 3). Whereas Hong Kong had almost seven times the investment of China in 2000, China accounted for 54.4 per cent of new approved investment in the first 10 months of 2005. In cumulative terms, China accounted for 34.9 per cent (over 59 per cent if Hong Kong is included) of overall garment investment in 2000-2005. Taiwan had 14.9 per cent, South Korea 10.4 per cent and Malaysia 6.1 per cent.

In 2003, garments worth a total value of US\$1,607 million were exported; the US took 70 per cent and EU markets 25 per cent (EIC, 2004). Despite the quota imposed by the US on some categories of products in 1999, Table 4 shows that Cambo-

dia's garment share of total export rose from 66.2 per cent in 1999 to 83.8 per cent in 2003. Despite the fear of tough global competition due to the removal of the Multi-Fibre Agreement (MFA) after 1 January 2005, garment exports remained strong, reaching US\$2.2 billion in 2004 (Rajah, 2006) and rising by another 11 per cent in 2005 (Spande, 2006). Cambodia's garment exports represented 0.74 per cent of the world total by value (MoC and ADB, 2004).

In 2003, exports to the US exceeded US\$1 billion for the first time, of which 63 per cent were items under quota. However, the US market share of total garment exports from Cambodia has fallen steadily from a peak of 81 per cent in 1998 to below 70 per cent in 2003 (MoC and ADB, 2004). This was due largely to preferential access to the EU under GSP. Exports to the EU topped US\$407.4 million in 2003, and following the extension of Canada's GSP scheme to cover textiles and apparel in January 2003, exports to other markets that year jumped to more than US\$75 million.

**Table 4. Cambodia's Garment Exports (1995-2003) (US\$ m)**

	1995	1996	1997	1998	1999	2000	2001	2002	2003
<b>US</b>	0.5	1.6	109.9	291.8	516.1	751.3	828.6	953.5	1,121.4
<b>EU</b>	25.7	74.8	112.4	63.1	136.7	220.8	309.1	355.7	407.4
<b>Other</b>	0.6	3.9	4.8	4.5	7.3	14.3	17.9	28.1	78.7
<b>Total</b>	26.8	80.3	227.1	359.4	660.1	986.4	1,155.6	1,337.2	1,607.1
<b>% of total</b>	3.3	12.1	28.9	51.7	62.2	77.0	81.4	81.3	83.8

Source: Ministry of Commerce, extracted from MoC and ADB, 2004.

2. In the period from 1980, after the Khmer Rouge regime, to 1991, Cambodia went through civil war. Most foreign investors took a wait-and-see attitude due to the political and security uncertainty. Since 1991, Cambodia has increased relations with the international community. A general election organised by UN in 1993 coupled with the intention of the government to integrate into the region, especially ASEAN, provided investors with greater confidence.

## 2. Current Problems Facing Garment Firms

**Corruption.** According to reports of the Foreign Investment Advisory Service (FIAS), ADB and Economic Institute of Cambodia (EIC), corruption is a challenge facing Cambodia's garment industry at the end of the quota system. Corruption results in large additional payments by manufacturers, accounting for up to 7 per cent of the value of sales (MoC and ADB, 2004; EIC, 2004; FIAS, 2004). The problem of unofficial payments is serious enough to reduce competitiveness. Two particular examples stand out in the garment sector: unofficial payments necessary to obtain export documents; and unofficial additional costs incurred in transporting a container from a factory by road to Sihanoukville port, through the port and onto a ship. One report stated that during transportation of a container from factory to ship, unofficial costs amounted to 37.3 per cent of the total cost (MoC and ADB, 2004). However, according to an official from the Ministry of Commerce, corruption has been reduced significantly over the last year. Since 2004, the government has been trying hard to reduce unofficial payments.<sup>3</sup>

**Bureaucracy and complex import-export procedures.** In addition to unofficial payments relating to import and export procedures, the ADB confirmed that the bureaucracy associated with importing raw materials and exporting finished products often resulted in a huge waste of time and unacceptable delays. The amount of time that senior managers need to spend on government-related matters represented a serious misallocation of resources.

**Trade unions.** There are issues regarding trade unions in Cambodia due to their status—some are and some are not independent from the ruling party. Because some of them have different political affiliations, this often leads to conflicts with their objectives (World Bank, 2005).

Other problems include differences in the interpretation of the labour law resulting in serious conflicts. In large part the business sector ascribes this problem to vagueness in the phrasing of articles in the labour law.<sup>4</sup> Issues of particular concern include overtime and night shift payments, provision of health services and the existence of several trade unions within the same factory, resulting in confusion and conflicting objectives (EIC, 2004).

Despite this, the unions have developed a workable system of coming to agreement on workplace issues. In the garment industry, they have developed a common proposal for a framework collective bargaining agreement that promises no strikes in exchange for the employers' accepting binding arbitration of labour disputes.

**Structural problems.** A structural problem ranked very high by companies is lead times. This concern is especially serious for knitwear and circular knit, cut and sew companies. Garment lead times from Cambodia are longer than those of other major competitors, as shown in Table 5. The issue relates largely to the almost complete absence of backward linkages. Cambodia and the garment industry must not ignore the changes to supply chains that are taking place around the world, partly as a re-

3. The statement from the Ministry of Commerce official was made in the conference on "Sustaining Development through Garment Exports: Cambodia and the Least Developed Economies", held on 5-8 June 2006 in Phnom Penh.

4. According to the ADB (2004), the industry raised the phrase, 'Freedom of work for non-strikers shall be protected against all forms of coercion or threat', and the need for the government to provide substance to this guarantee and indicate how it can be implemented.

**Table 5. Garment Lead Times (days)**

Country	Woven garments	Circular knit garments
Cambodia	90-120	90-120
Bangladesh	90-120	60-80
China	40-60	50-60
India	50-70	60-70
Indonesia	60-90	60-70
Malaysia	60-90	50-60
Thailand	60-90	50-60
Vietnam	60-90	60-70

Source: MoC and ADB, 2004.

sult of the changing trade environment. As other countries have done, Cambodia should encourage investments in upstream parts of the textile supply chains in order to provide shorter lead times, improve competitiveness, increase the number of direct and indirect jobs in the textile/garment industry and raise the domestic value added content of exports.

### **3. The Labour Market**

Foreign companies have virtually unrestricted access to Cambodia's labour force. However, certain restrictions exist on employment of foreigners. For example, employment regulations require that the proportion of foreign experts to local workers shall be no higher than 1:10, i.e., employment of one foreign expert shall be accompanied by employment of at least 10 local workers (Law on Investment, 1994). Investors are permitted to bring in foreign nationals who are qualified managers, technical personnel or skilled workers.

Wages are set by market forces, except for civil servants, for whom wages are set by

**High cost of utilities.** The input costs are high in garment manufacturing and other manufacturing industries. This is due in part to the high price of petroleum in the country. The main issue here, especially for the more machinery-dependent manufacturing processes, is the cost of power. The cost of electricity in Cambodia is US\$0.15 per kW hour, 2.5 times that of the international average of US\$0.06. The cost of electricity is very high compared to other countries in the region (EIC, 2004).

**Human resources.** Years of war and isolation have left Cambodia with poor human resources and infrastructure. Garment firms in Cambodia find it difficult to acquire skilled labour and managers in the country. Most skilled workers and managerial staff are hired abroad, mainly from China, Hong Kong and Taiwan (USAID, 2005). Moreover, most garment workers have only primary school education. This low level of education is also a constraint on skill upgrading. According to the ILO (2004), only 8 per cent of garment workers have high school education, 31 per cent have lower secondary school education, while the other 61 per cent have primary school education.

the government. The Ministry of Labour and Vocational Training has the right to set minimum wages for each sector of the economy based on recommendations from the Labour Advisory Committee.

The Ministry of Labour, at that time called the Ministry of Social Affairs, Labour, Vocational Training and Youth, formally exercised this authority for the first time in July 2000, when it approved a US\$45/month minimum wage for post-probation workers in the garment and footwear sector. Workers who are in the probation period of one to three months receive a minimum monthly wage of US\$40. Also, the garment

and footwear sector is obligated to provide the following benefits to workers:

- an incentive of at least US\$5 per month for full attendance;
- a food allowance of 1,000 riels or one free meal for each worker who volunteers for overtime when requested by the employer;
- a seniority payment of US\$2-5 per month;

- annual leave of 18 days.

The labour standards of the Cambodian garment industry have been compliant with international standards as well as with Cambodian labour law (FIAS, 2005). The 1999 bilateral trade agreement with the US, which is linked to working conditions, provided Cambodia with an increased quota when quotas were still in effect.

#### **4. Industry Performance and Emphasis on Technological Capacity Building**

---

##### **Personnel and Training**

---

Although the garment industry is the engine for economic growth, investment in skill development is not commensurate with its significance to the economy. Technical training in garment firms is lacking at all personnel levels from senior managers down (USAID, 2004). There was only a little training for sewing machine mechanics by trainers from China. Training needs to be strengthened in order to ensure productivity and competitiveness. Surprisingly, firms do not use training centres to train their workers.<sup>5</sup> Workers have to finance themselves

to train in private centres before being employed in factories.

Also, the government has imposed virtually no requirements for skill development on garment firms (Rajah, 2006). The government should consider imposing a small tax—e.g. a 1 per cent levy on profit which firms could reclaim through approved expenses on training, and another 1 per cent profit levy to be used by local government to support training institutions, as is common in Vietnam and Malaysia.

##### **Technological Levels**

---

The technology employed in garment firms is at the lowest level in sewing and inspection. Machines have few attachments that could aid workers to operate more effectively, in either volume or quality terms. Due to the fact that labour costs are very competitive, management considers it cheaper to employ people than to invest in machines or equipment (MoC and ADB, 2004). A few garment firms in Cambodia work with CAD systems and laying and cutting machines to minimise waste,

but this type of technology is not widespread.

The low level of technology is also due to garment brand names increasingly concentrating on simply building and sustaining their brands, while outsourcing other activities (Rajah, 2006). Firms in Cambodia are extremely slow in adapting technology compared to Indonesia, Thailand, the Philippines and China.

5. Interviews by the authors with 15 garment firms during the period of 15-22 February 2003. The research was funded by JETRO to identify human development issues in the private sector.

## **Productivity**

Because of the low level of work skills, the lack of training of staff and the small investment in technology, of course the productivity of garment firms is low. The garment industry generally accepts manual laying and cutting and basic sewing machines; the factories prefer to employ more people rather than improve technology. Worker productivity is extremely low compared to competitors (EIC, 2004).

However, the highest productivity levels were found in the smaller Cambodian-owned companies<sup>6</sup> where management teams train

new recruits in accuracy and speed, as well as the quality standards expected of them, and encourage them to be successful. The level of innovation of employees was found to be much higher in these smaller units than in the large companies.

Low worker productivity is considered to be one of the more easily solved problems. Labour productivity could be increased by 10 to 29 per cent through improved skills, better human resource practices and better work ethics and organisation (MoC and ADB, 2004).

## **Institutions for Skills and Technological Development**

There are very small numbers of training centres for garment workers in Cambodia. These are insufficiently capitalised to support cutting edge training and too small to train many workers. Also, there are no research and development institutions in the government or the private sector to support technological development of the industry. The lack of training and R&D is a huge constraint on skill upgrading and technological advancement.

Polytechnics and other technical schools focus their programmes on training electricians, boilermakers and welders. There are no programmes focused on training garment workers or technological upgrading. Moreover, universities in Cambodia

(private and state) are seriously short of professionalism. Private universities have grown remarkably since 1996, but there is no regulation to ensure standards.

The Garment Manufacturers Association of Cambodia (GMAC), however, plays a very important role in garment worker training. GMAC is by far the most effective business association in Cambodia and was actively involved in negotiations for the US-Cambodia bilateral trade agreement, raising policy issues with the government, co-chairing the export processing and trade facilitation working group, developing policy approaches, sharing potential solutions to problems of logistics and sharing information on market conditions.

## **5. Implications for Long-Term Growth**

The importance of the long-term growth of the garment sector to the national economy is immense. Garment export were nearly 15 per cent of GDP in 2004 (Table 2). Although there is not yet a study of the impact of the garment sector on

poverty alleviation, the MoC and ADB (2004) reported that garment workers remit at least half of their salaries to their rural families, which contributes largely to improving living standards and families' education.

6. According to a report by USAID in 2004, Cambodian-owned firms represent only 5 per cent of the garment industry.



It is clear that a decline in jobs and incomes, and therefore also in remittances, would translate directly into lower incomes for women and poor households. It is likely that the social impacts of increasing joblessness would be great as large numbers of young women were thrown into an employment market that has few opportunities for them. Because these young women do not possess skills for alternative employment and can not easily go back to their villages, some NGOs working with garment employees fear that large number of women would be pushed into unsuitable or exploitative employment (Oxfam, 2002).

To sustain long-term growth of the indus-

try, the government needs to coordinate and support institutions for skill upgrading and technological advancement and eliminate obstacles that affect business operation, such as unofficial payments and excessive red tape. In addition, the government needs to ensure political stability, basic infrastructure (transport, telecommunications, health, schooling, power, water, security and customs) to make business operations easier and more effective. The government should also provide high tech public goods, as explained earlier, such as training, higher and technical education, R&D labs and an intellectual property rights framework to strengthen and stimulate upgrading in firms.

## 6. Conclusion

---

The garment industry has grown remarkably in a short period of time. It has become the main force for national economic development by creating 245,000 jobs and generating the majority of Cambodia's foreign currency earnings. It has been an important tool for poverty alleviation.

The end of the MFA has put Cambodia's garment industry in a difficult situation by increasing competition in the international market and removing the quota advantage. The sustainability of the garment industry after the end of the MFA depends largely on the response of the government to corruption and bureaucracy, and on investment in education, training and high tech public goods to upgrade workers' skills and pro-

ductivity, and to raise firms' technology level.

The quota bonus that was provided by the United States due to the strong compliance of the industry with labour standards was not a tool for long-term sustainability of the industry because of the end of the quota system. Cambodia has no major unique cost position, and although labour compliance is a positive feature, the industry will continue to depend on preferential market access for the foreseeable future. In such a situation, institutional and systemic developments are important for their impact on firm-level technology. As well, the garment firms will have to change from cost-based competition to product-based competition to ensure competitiveness in the international market.

## References

- Bargawi, Omar. 2005. *Cambodia's Garment industry—Origins and Prospects*. London: Overseas Development Institute.
- Economic Institute of Cambodia. 2004. *The Cambodian garment industry 2005 and beyond: A quantitative analysis of the critical challenges*. Phnom Penh: Economic Institute of Cambodia.

- Foreign Investment Advisory Service. 2005. 'Labor standard monitoring, garment sector: Current status, desired end state, and recommendations'. Washington, DC: FIAS.
- Foreign Investment Advisory Service. 2004. 'Cambodian garment sector: Buyers survey results'. Washington, DC: FIAS.
- Hing Thoraxy. 2003. *Cambodia's Investment Potential*. Phnom Penh: Japan International Cooperation Agency.
- ILO, 2004. *Better Factories Cambodia*, at: <http://www.betterfactories.org/content/documents/Facts%20and%20Figures.pdf>.
- Ministry of Commerce and ADB. 2004. *Cambodia's Garment Industry: Meeting the Challenges of the Post Quota Environment*. Phnom Penh: Ministry of Commerce.
- Oxfam, Womyn's Agenda for Change. 2002. *A Social Study of Women Workers in the Cambodian Garment Industry*. Phnom Penh: WAC.
- Rajah Rasiah. 2006. *Sustaining Development through Garment Exports: Cambodia and Least Developed Economies*. United Nation Conference on Trade and Development (forthcoming).
- Royal Government of Cambodia. 2006. *National Strategic Development Plan 2006-2010: For growth, employment, equity, and efficiency to reach Cambodian development goals*. Phnom Penh: Council of Ministers.
- Royal Government of Cambodia. 2002. *National poverty reduction strategy 2003-2005*. Phnom Penh: Council for Social Development.
- Spande, Jennifer. 2006. 'Garment Sector in the End of the Multi-Fiber Agreement'. Phnom Penh: US embassy.
- Spinanger, D. and S. Verma. 2003. 'The coming death of the ATC and China's WTO accession: will push come to shove for Indian T&C exports?', in Alan Winters and Pradeep S. Mehta (eds.) 2003. *Bridging the Differences—Analysis of Five Issues of the WTO Agenda*. Jaipur: Consumer Unity and Trust Society.
- Royal Government of Cambodia. 1996. *Socio-Economic Development Plan 1996-2000*. Phnom Penh: Council of Ministers.
- USAID. 2005. *Measuring Competitiveness and Labor Productivity in Cambodia's Garment Industry*. Phnom Penh: USAID.
- World Bank. 2004. *Cambodia Seizing the Global Opportunity: Investment Climate Assessment and Reform Strategy for Cambodia*. World Bank.
- World Bank. 2005. *Cambodia Corporate Social Responsibility in the Apparel Sector and Potential Implications for other Industrial Sectors*. Phnom Penh: Foreign Investment Advisory Service.

# The Role of the Textile and Garment Industry in Vietnam's Economy

**Le Van Dao\***

Vietnam's textile and garment industry now employs more than 1 million workers (more than 20 per cent of the total industrial workforce). It produces 12 per cent of the value of the processing industry and about 17 per cent of the country's exports, coming right after the petroleum industry.

In the past 10 years, the industry has recorded remarkable growth. In 2005, the industry's production capacity was doubled and export value up 244 per cent compared to 2001. Vietnam's textile and garment products are considered good and consistent in quality, reasonable in price and reliable in delivery time.

The textile and garment sector is the second largest export earner for the country, after oil and gas, with nearly US\$4.4 billion in exports in 2004 and US\$4.83 billion in 2005, an increase of 9.5 per cent. The three biggest importers from Vietnam are the US, EU and Japan, which account for 55, 20 and 13 per cent respectively of the total garment export value. Vietnam's export performance for the last six years in these markets is presented in Table 1.

Table 1 shows that Vietnam's garment exports are highly concentrated on the US

market, accounting for 55 per cent of total garment exports. However, following sharp increases in exports in 2002 and 2003 as a result of the Vietnam-US bilateral trade agreement signed in October 2001, the growth rate decreased to 25.4 per cent in 2004 and 6.7 per cent in 2005 because the US imposed quotas on Vietnam while removing them for other countries.

Vietnam's garment exports performed well in the EU market in 2005. The high export growth rate in 2004 was due to the admission of 10 new EU members in May 2004. In the first quarter of 2005, the growth rate was sharply decreased by the impact of quota removal for all WTO member countries. Nevertheless, the rate increased at the end of 2005, thanks to the WTO status that EU gave Vietnam from 1 January 2005 and the safeguards imposed on China. In the first quarter of 2006, exports increased 75.7 per cent compared to first quarter 2005.

Garment exports to the Japanese market have grown impressively in 2004 and 2005 as a result of stronger Japanese demand, the general foreign trade growth between Japan and Vietnam and Vietnamese garment manufacturers' better understandings

Market	2000	2001	2002	2003	2004	2005
US	50	45	951	1,973	2,474	2,640
EU	609	599	570	580	763	875
Japan	620	588	521	514	531	605
Others	614	730.4	710	587	618	680
All exports	1,892	1,962	2,752	3,654	4,386	4,800

\* General Secretary, Vietnam Textile and Apparel Association (Vitas).

of the Japanese market. Vietnam's proximity to Japan and the high quality of its prod-

ucts are the two most important competitive advantages of the country.

### **Concentration in the Industry**

According to 2004 figures by the Vietnam Textile and Apparel Association, 1951 textile and garment firms were operating in Vietnam, categorised into three groups: state ownership 307 firms ( 15.7 per cent), private ownership 1172 firms ( 60.0 per cent), FDI 472 firms (24.3 per cent).

Under the plan, in the period to 2007, all textile and garment factories are to be privatised or equitised.

By type of production, the sector can be divided into five groups: materials and spinning, 96 firms; textiles and finishing, 388 ; garments, 1446 ; accessories and others, 35 ; trading and service, 265 .

Most of the companies are located in and around Ho Chi Minh City: in the city 1090 firms (56 per cent of the total) and in the surrounding provinces 293 firms (15 per cent). In Hanoi and the nearby provinces are located 363 firms ( 18.5 per cent) and in other provinces 205 firms (10.5 per cent).

A study covering 434 textile and garment firms found that 75 per cent were small and medium firms—with capital of less than US\$350,000 and employing fewer than 500 workers. The capacities of Vietnam-

ese firms for various products include:

- **Materials processing:** Seven cotton-processing companies have a capacity of 60,000 tons of cotton balls, equivalent to 20,000 tons of cotton fibre per year. Two polyester factories capable of producing 150,000 tons a year are under construction. About 100 spinning firms, with a total of 2,200,000 spindles and 15,000 rotors, have a capacity of 300,000 tons of staple fibre yarn per year (Ne 30 on average).
- **Weaving:** Three hundred and five firms and thousands of household manufacturing facilities have more than 16,750 fabric and towel manufacturing machines. Production capacity is about 680 million square metres of fabric (warp 60) and 38,000 tons of towelling a year.
- **Knitting:** Eighty-six firms and thousands of household facilities produce about 300,000 tons per year.
- **Non-woven fabrics:** Five firms produce cotton padding and two companies producing geotextile fabrics with an annual capacity of 5,000 tons.
- **Garments:** Some 1471 garment firms with 771,450 sewing machines and more than 1 million workers have a capacity of 2.15 billion shirts or equivalent standardised items.

### **Problems Faced by Garment Firms**

In comparison with competitors in the region, Vietnam's textile and garment industry enjoys some advantages. However, it also suffers from many disadvantages. Some of the most common are:

- **High production cost:** In spite of low wages, Vietnam's production cost is relatively high compared to China, India and Pakistan due to low labour productivity, high infrastructure costs (elec-

tricity, internet, telephones and transportation) and imported inputs. This makes Vietnam less competitive than China, India and Pakistan in low-end garments.

- **Long lead times:** Long distances between Vietnam and its main markets such as the US and EU, importation of inputs and complicated customs procedures are the main reasons for long lead times. As

international buyers have increasingly required garment suppliers to deliver in less time, this problem has affected the competitiveness of the country.

- **Lack of capacity to provide full-package services:** Since the Agreement on Textiles and Clothing ended on 1 January 2005, international buyers have increasingly preferred to eliminate buying agents and source garments directly from manufacturers that can provide full-package services. Very few of Vietnam's garment enterprises have this ability because they lack the design, material sourcing and logistics arrangements.
- **Inadequate human resources development:** Vietnam's garment sector has a shortage of highly skilled workers such as technicians, marketing staff, middle managers and designers. For a long time, most of Vietnam's garment manufacturers have focused on CMT; therefore, marketing, management and de-

sign skills were not paid due attention.

- **Inadequate supporting industries:** Domestic textile and accessories industries do not meet the requirements of garment manufacturers in terms of quantity and quality. Vietnam's garment sector imports 75-80 per cent of its materials, thus increasing production costs, lead times and risks. Design and training are also under-developed.

The textile and garment industry is threatened by the ever fiercer competition from powerful exporters such as China, India and Pakistan. Furthermore, the zero tariff policies for tsunami-affected countries including Sri Lanka, Thailand and Indonesia have increased competitive pressures on Vietnam. However, the quotas on Chinese garment exports to the US and EU remain until the end of 2008, creating opportunities for countries including Vietnam to improve their competitiveness.

### ***Drivers of Garment Manufacturing in Vietnam***

Vietnam has been progressively integrated into the international economy and has been a member of the Association of South East Asian Nations (ASEAN) since 1995 and of Asia Pacific Economic Cooperation since 1998; it is now actively concluding the steps to join the WTO, hopefully by the end of 2006. At present, Vietnam has to reduce tariff on a number of lines in accordance with the common effective preferential tar-

iff under the ASEAN Free Trade Area. On 21 December 2001, a bilateral trade agreement between Vietnam and the US came into effect. Since then, the industry has significantly boosted its exports to the US, from US\$47 million in 2001 nearly US\$2,640 million in 2005. With the expected WTO membership and thus the removal of quotas to the US market, the textile and garment industry of Vietnam can develop further.

### ***Mechanisms and Policies Affecting the Industry***

The end of the Agreement on Textiles and Clothing, removing quotas for all producers except Vietnam and some other non-WTO countries, creates an even fiercer competition, giving many advantages to big exporters. This puts the Vietnamese garment industry into a very difficult situation because of quota imposed by the US.

However, the removal of garment quotas to

the EU for Vietnam from 1 January 2005 opens a new opportunity for Vietnam's garment sector to significantly increase export value. As well, EU and US quotas imposed on garment imports from China in early 2005 are an opportunity for other countries, including Vietnam, to increase their exports.

It is likely that its strong determination and active negotiating efforts will result in Vi-

Vietnam becoming a WTO member by the end of 2006. That accession means the removal of all quotas that are currently imposed on Vietnamese garment exports to the US. This will help Vietnam to gain a bigger share of the US market, because the quota has been one of the biggest barriers to increasing exports to this market.

ASEAN (AFTA): The duty-free arrangement

of the ASEAN Free Trade Agreement gives Vietnam a number of opportunities: (i) Indonesia and Thailand can become sources for fabrics; (ii) there is a possibility of establishing factories in other ASEAN countries; (iii) ASEAN, as a trade bloc, could negotiate with Japan, EU and the US to give ASEAN favoured tariffs on garments and/or to accept cumulative rules of origin for garments and textile products.

---

### **Other Driving Forces**

---

As a great employment generator and an important foreign currency earner largely contributing to social stability and to the state budget, the industry has received important support from the government, notably the development strategy and a number of investment promotion initiatives and export promotion activities that serve as a guideline and backbone for the harmonised development of the industry.

Low labour costs are one of the most important advantages of Vietnam's garment sector and have been decisive in enabling Vietnam's garment exports to increase quickly in recent years. Vietnam's wage rate in the garment sector is one of the lowest in the world, approximately two-thirds that of India and about half of China's.

Vietnamese workers are considered skilful at sewing and able to learn new skills quickly. This has enabled garment manufacturers to recruit and train workers in a short period of time and at low cost. Moreover, skilful and quick-learning workers have earned Vietnam's garment sector an image as a good and reliable quality garment supplier.

Stable economic and political conditions and an improved legal and business environment in recent years have given Vietnam a positive image in the world. This plays an important role in the decisions of foreign investors in the textile and garment

sector. Vietnam has been making progress in improving its business environment, harmonising and standardising its legal system and policy mechanisms to meet international requirements, especially those relating to investment, trade and tariffs. For example, investment licence procedures have been simplified to shorten the application time for investors. The transportation system, electricity, water supply and telecommunications have been improved, especially in Hanoi and Ho Chi Minh City. The service industry is booming.

Vietnam's domestic market, with more than 85 million inhabitants, represents a high consumption demand. In 2004, the local sale of garments in Vietnam was estimated at US\$1.15 billion, and it is expected to increase to US\$2.8 billion by 2010 and US\$4.7 billion by 2015. This domestic market can also make a great contribution to the development of Vietnam's garment firms.

The above favourable circumstances are a driving force for the future development of Vietnam's textile and garment industry. Although there remain a number of weaknesses as analysed in the preceding section, the industry is working hard to overcome them and improve its overall competitiveness. This can be clearly seen in the efforts to set up Textile and Garment Material and Accessories Centres in Hanoi and Ho Chi

Minh City to increase the supplies of local materials to garment manufacturers, thus lowering production costs and decreasing lead times. Customs initiatives such as e-customs clearance and the priority customs clearance card (giving priority to enterprises

that have never violated customs law) have been implemented, and selective customs checking is expected to come into effect with a new customs law in early 2006. This will shorten the time required for both importing materials and exporting garments.

### **Labour Markets**

According to 2004 statistics, the textile and garment industry of Vietnam employs about 1.1 million workers on industrial scale assembly lines and about 1 million in household factories and workshops, excluding those working in cotton and mulberry fields.

The sex breakdown of this workforce is 68.2 per cent female and 31.8 per cent male in textiles and 78.9 per cent female and 21.1 per cent male in garments. Training and age statistics are provided in tables 2 and 3.

In the spinning sector, due to differences in machinery, technological level and management between firms, there is a big difference in productivity. On average, one worker in Vietnam manage 90 spindles, just 80 per cent of a the task of a worker in China or India. In the weaving sector, the same problem exists. The productivity of Vietnamese-owned weaving factories is just 50 per cent of that in foreign-

invested firms in Vietnam. Productivity in the garment sector is much better. However, although there is no big difference in productivity among garment companies, the sector's productivity is still lower than that in China and Malaysia. Accounting for the largest proportion in CMT garment production costs (60–65 per cent), sewing labour costs in Vietnam are rather low, and this is a big advantage.

Recently, there have arisen a number of problems in worker-employer relations, especially in foreign-invested companies, due to a lack of communication and interpretation of Vietnamese labour laws and improper welfare conditions. At present, the government, labour unions and the International Labour Organization are carrying out joint programmes to improve the situation. As for social accountability, about 70 per cent of garment and textile firms are examined and certified by credible institutions to meet standard safety requirements, sanitary standards and a good working environment. However, not many firms have been certified with ISO 9000, 14000, SA 8000, Eco label, WRAP etc.

	<b>Textile</b>	<b>Garment</b>
Master/postgraduate	0.08	0.01
University & college	7.04	4.00
Vocational training	4.71	3.50
Technicians	3.34	3.78
Skilled	18.82	6.30
General workers	66.01	82.41

	<b>Textile</b>	<b>Garment</b>
<31	38.3	64.3
31-40	34.4	27.0
41-50	24.3	7.6
>50	3.0	1.2

## Future Vision and Strategic Planning

The vision is that in the next five years, Vietnam will shift its garment export focus from CMT to FOB, and from low-end markets to middle (and to some extent high-end) markets. The industry will become more efficient in material sourcing, through both increased domestic textile production and more efficient import sourcing methods, and will be more vertically integrated, with upstreaming capacity. Its competence and productivity will be increased through a better research, training and development support infrastructure, especially in a seaport to enable direct shipment to target markets. However, the removal of quotas has brought tougher competition in garment exports, especially from China and India. The Vietnamese industry's target for 2010 is doubling its exports to a value of US\$9-10 billion and employing 3.5- 4 million workers.

To achieve that vision and target, a number of strategic moves should be implemented. **Attract FDI into the textile and garment sector.** The government (Ministry of Trade, Ministry of Industry), Vietnam Textile and Apparel Association (Vitas) and Vietnam Textile and Garment Corporation (Vinatex, state-owned group) should coordinate their efforts. A number of FDI promotion methods can be employed, such as annual conferences on FDI in the sector, cooperation programmes with other countries' textile and garment associations and promotion missions to investor countries.

**Shift production facilities and attract fdi to rural areas.** Future textile and garment production facilities, both domestic and foreign-invested, should be encouraged by investment incentives to locate in rural areas.

**Develop material sourcing skills.** Material sourcing is the first requirement for Viet-

nam to move from CMT to FOB. Very few of the country's garment enterprises possess this skill adequately, and no training in it is available in Vietnam. Sourcing specialists need to understand all kind of fabrics, including their characteristics, uses and providers, and know how to negotiate. Sourcing experts must also know how to build partnerships with material providers to get the best prices and services.

**Strengthen design capacity.** Design capacity is another important precondition for a garment manufacturer to move from CMT to FOB. The design capacities of Vietnam's garment enterprises are considered weak, with only a few exceptions. The reasons could include:

- The majority of Vietnamese garment manufacturers have focused on CMT, which requires relatively little design capacity. Therefore, designers lack the motivation to improve and the abilities required to track fashion trends. In general, manufacturers' designers are incapable of designing their own garment styles for export.
- The domestic market is always the background against which a fashion industry develops. A high domestic demand for fashion would lead to a developed fashion industry. Vietnam's domestic garment market does not demand sophisticated fashionable garment, while garment enterprises have long focussed on exports and neglected the domestic market.
- The fact that CMT does not require high design capacity leads to weak cooperation between fashion institutes, fashion designers and garment enterprises.

Despite the weak designing capacity of Vietnamese garment enterprises, several independent designers have shown good



design skills. Their fashion shows have been highly praised both in the country and abroad.

**Improve productivity.** A shortage of qualified middle management, inappropriate production and management processes and high labour turnover are the main reasons for the low labour productivity of Vietnam's garment sector. The same people working for foreign-owned garment enterprises with similar sewing machines can achieve 20 per cent higher productivity. Both production and management should be restructured. However, in the long term, investment in technology modernisation and IT should be implemented to yield higher productivity.

**Promote SME development.** Approximately 75 per cent of Vietnam's textile and garment companies are small and medium enterprises. Despite their disadvantages of scale, these SMEs have great potential to develop thanks to their flexibility in management, structure and production. They can potentially be players in niche markets. For example, SMEs can be effective in manufacturing accessories for garment production like trims, zippers and buttons, or can be exporters of silk and embroidery.

**Establish material sourcing centres.** Material sourcing centres are urgently needed by Vietnam's garment manufacturers since sourcing materials locally enables enterprises to reduce production costs (fewer costs of shipment of materials and customs procedures), shorten lead times (negotiation, quality certification, shipment, customs) and reduce risks associated with shipment delays.

Establishing such centres would need joint efforts from both private and state sectors. The state sector would play a supporting role and the private sector initiate and manage the centres. So far, the Vietnam Textile and Apparel Association, the Leather and

Footwear Association and the Vietnam Textile and Garment Corporation have initiated two material sourcing centres in the form of joint stock companies in Ho Chi Minh City and Hanoi for the garment, textile, leather and footwear sectors.

**Establish a training centre.** To supply qualified managers, merchandisers, designers and technicians for the industry, it is essential to set up a training centre with co-ordination and support from international institutions. It is expected that services from this centre would improve the ability of Vietnam's textile and garment industry to overcome its weaknesses, which are also faced by industries in other countries. Vitas hopes to receive cooperation and support from concerned governments and international organisations.

**Strengthen Vitas' capacities.** As a representative of the manufacturers in the industry, Vitas plays an important role in advocating and implementing policy and collecting and providing information for enterprises. Its capacities to provide services to its members must be strengthened. This can be done in part through cooperation programmes with other countries' associations: exchange of staff training, forums, technical training etc.

**Improve customs clearance and port capacity.** With increasing demand from customers for shorter delivery time, Vietnam's complicated customs procedures should be simplified to clear goods faster. Port infrastructure should also be improved to increase speed.

**Establish an information centre.** One of the most effective ways to increase the sector's exports is to enable each enterprise to make its own decision to improve its performance. To do this, enterprises need sufficient information on market trends, tastes, import and export situations etc. to make wise decisions. However, it is difficult as well as

inefficient and ineffective for each enterprise to collect and analyse information separately. A system to collect, analyse and disseminate information for the whole sector is the best solution. Such a system, in the form of an information centre, is also needed to help policy makers to devise timely and suitable policies. Vietnam's textile and garment sector has not established such a system, and it is recommended to establish one soon. The information centre should have the following functions:

- collect and analyse information on the export situation of Vietnam every month, including total export value, export value in each market and composition of exports (CMT and FOB);
- determine characteristics, growth rates, buyer preferences and potential opportunities for exports in each market;
- describe fashion trends in each season, including colours, styles and materials;
- report on government policies related to garments and textile, including investment incentives, export incentives and quota allocations;
- be a contact point for international buyers who want to source garments from Vietnam.

**Promote e-commerce.** E-commerce is a powerful tool to bring together sellers and buyers separated by geographic distance. These are several trade portals through which Vietnamese garment enterprises can get access and participate in trading. These portals are normally crowded with sellers, especially from China and India, leading to quite low offer prices. Vietnam's garment enterprises are recommended to join in these portals because they could not only get orders but also become accustomed to e-commerce, which is increasingly important in the world's trading.

**Improve trade fair participation and promote direct client contact and public relations.** Participation in fashion trade fairs is a traditional marketing tool for approaching international buyers. It should be done selectively and can be combined with other activities like visiting buyers' stores and meeting with buyers to track fashion trends and buyer preferences and to build relationships. Vitas should summarise and disseminate the results and experiences from the fashion trade fairs in which Vitas and Vietnamese garment enterprises have participated. From these reports, garment enterprises would be able to learn which trade fairs are suitable for them and how best to prepare for the fairs they want to participate in.

Other trade promotion approaches should be explored, such as establishing trade agencies, organising shows and sending trade missions to target markets.

**Promote and strengthen cooperation with ASEAN countries.** Vietnam's textile and garment sector should promote cooperation in supplying fabrics and accessories to Vietnam, in manufacturing under outwards processing arrangements, by investing in Vietnam for local supply and by delivering technical expert service to counter the weaknesses of Vietnam's textile and garment industry and by fully making use of relevant strengths of the textile and garment industries in ASEAN countries.

**Speed up accession to the WTO.** Vietnam's accession to WTO will solve the quota problem for garment exports to the US, which is the industry's biggest export market, and provide access to the international market without discrimination.