

WORKING PAPER NO. 94

**EXPORT COMPETITIVENESS OF INDIAN TEXTILE
AND GARMENT INDUSTRY**

SAMAR VERMA

NOVEMBER, 2002



INDIAN COUNCIL FOR RESEARCH ON INTERNATIONAL ECONOMIC RELATIONS
Core-6A, 4th Floor, India Habitat Centre, Lodi Road, New Delhi-110 003

Content

Foreword	i
I. INTRODUCTION	1
What Is Competitiveness?	2
Objective & Scope Of The Study	2
Research Methodology.....	3
Competitive Performance- Operational Definition.....	3
II. GLOBAL TRADE IN TEXTILE AND CLOTHING: INDIA'S COMPETITIVE PERFORMANCE	4
Trade in Nineties.....	5
The Macro Picture of US Market for T&C Imports	5
US Import Trend	5
US Import Quota Relative To US Market.....	6
India's Competitive Performance in the US.....	6
Macro Picture of EU Market for T&C Imports.....	11
EU Import Trend.....	11
Limitations with EU data.....	12
India's Competitive Performance in the EU	13
III. Emerging Global Marketplace	15
IV. Domestic Factors Affecting Competitiveness of Indian Textile and Clothing Sectors	18
[A] Product Specific Cost- Supply Chain Management	18
[B] Government Policy.....	23
[C] Economy-Wide Costs.....	28
[D] Non-Price Factors	29
V. Policy Recommendations	30
[A] Textile Specific.....	31
[B] Textile Non-Specific	34
References	36
APPENDIX A	43

Foreword

The textile and garment sectors play an extremely significant role in India in terms specially of share in value added, foreign exchange earnings, and employment. With the impending dismantling of quotas in 2004 under mandate from the Agreement in Textile and Clothing of the WTO, the focus has clearly shifted to the future of the Indian textile and clothing exports. This study is an attempt to evaluate export-competitiveness of the Indian textile and garment exports with a view to assessing the competitive sinews in preparation for the quota-free trade beyond 2004.

The study has examined India's competitive performance in the US and EU markets for MFA (ATC) product categories that are important in Indian export basket, and has found that Indian exports to the EU and the US are, on the whole, export-competitive. It has also delineated the changing landscape in the international trading environment which is likely to significantly impact global textile and clothing trade. To enhance the competitiveness of the industry, the study has highlighted areas requiring government policy intervention. The study concludes that while there is little doubt regarding the immense potential that the Indian industry-specially garment sector- has, several policy reforms are needed urgently in order to unlock this latent capability. Besides, from the emerging nature of global trading environment, it appears that market access would become an increasingly important aspect of translating competitiveness into export performance.

I am confident that this study will provide significant inputs to policy-makers, industry captains as well as academicians towards unleashing the immense potential of the Indian textile and garment industry and enable the industry to realise its rightful place in the global economic space.

(Arvind Virmani)
Director & Professor
ICRIER

December 2002

Export Competitiveness of Indian Textile and Garment Industry*

I. INTRODUCTION¹

The international trade in textile and clothing sectors has been a egregious exception to the *most favoured nation* principle of GATT and, since the early 1960s, has been a case of managed trade through forced consensus². However, the WTO Agreement on Textile and Clothing (ATC) marked a significant turnaround. According to the ATC, beginning 1st January 1995, all textiles and clothing products that had been hitherto subjected to MFA-quota, are scheduled to be integrated³ into WTO over a period of ten years. “The dismantling of the quota regime represents both an opportunity as well as a threat. An opportunity because markets will no longer be restricted; a threat because markets will no longer be guaranteed by quotas, and even the domestic market will be open to competition”⁴. From 1st January 2005, therefore, all textile and clothing products would be traded internationally without quota-restrictions⁵. And this impending reality brings the issue of competitiveness to the fore for all firms in the textile and clothing sectors, including those in India. It is imperative to understand the true competitiveness of Indian textile and clothing firms in order to make an assessment of what lies ahead in 2005 and beyond.

Owing to its significant contribution, the Indian textile and clothing industry⁶ occupies a unique place in the Indian economy. It contributes about 4% of GDP and 14% of industrial output. Second largest employer after agriculture, the industry provides direct employment to 35 million people including substantial segments of weaker sections of society. With a very low import-intensity of about 1.5% only, it is the largest *net* foreign exchange earner in India, earning almost 35% of foreign exchange. This is the only industry that is self-sufficient and complete in cotton value chain- producing everything

* This Paper is a condensed version of the ICRIER study on the same subject completed in May 2002.

¹ The author is grateful to all the participants in the seminar held in July 2002 in New Delhi to discuss the findings of the study. Special thanks are due to the two discussants- Mr. S. Narayanan, former ambassador and permanent representative of India to the WTO, and Dr. Rajesh Chadha, Honorary Advisor/Chief Economist at NCAER- for their critical insights and valuable suggestions. The author remains grateful to Mr. Anwarul Hoda for his guidance and support at all stages of this study.

² Khanna [1991].

³ The term ‘integrated into the WTO’ means that the quotas would be eliminated on the products.

⁴ Kathuria & Bharadwaj [1998].

⁵ The tariff on these items would not be eliminated as part of the ATC, and hence the trade would not be truly free, but only quota-free. Moreover, to what extent the intent of the ATC is followed in spirit too by the importing countries who have imposed MFA-quotas, is a matter of debate. Spinanger [1999], for instance, prefers to believe in the importing countries’ “Faking Liberalisation and Finagling Protectionism...”. See also WTO [2001]b.

⁶ Textile would be used to mean fibres, yarn, fabric and made-ups, whereas clothing would stand for ready-made garments. The terms clothing, apparel and garments would be used interchangeably in this study.

from fibres to the highest value added finished product of garments. Its growth and vitality therefore has critical bearings on the Indian economy at large⁷.

What Is Competitiveness?

Competitiveness is about **productivity**, which in turn is a function of factors related to cost of products, as well as those related to non-price factors such as delivery schedules, reliability of producers, and such intangible factors like image of the country/company and brand equity. Together, they define the competitive sinews of a product to compete under conditions of free market.

However, in order to translate industry competitiveness into sales (greater export share in world market), another set of issues- in addition to productivity- need to be examined. These relate to **market access conditions**. Indeed, industry competitiveness of restrained exporters such as India was not much of an issue during the last almost four decades⁸, ever since the Short Term Arrangement (STA) of 1961. And the reason lay not in price and non-price factors, but in the ‘managed’ conditions under which global trade in textile and clothing products took place. In fact, it was precisely because of the price competitiveness of some Asian exporters in the 1950s and the 1960s that the “generally and solemnly agreed rules of post-war policy conduct- including the keystone of the system, the non-discrimination rules- were formally set aside for reasons regarded as pragmatic”. This system of managed trade, however, will come to an end on 31st December 2004.

For the purpose of this study, industry has been defined as a group of firms manufacturing products that directly or indirectly competes with each other. It is implied that no nation can be competitive in manufacturing all goods and services. Hence, industry competitiveness of an entire *nation* is not quite meaningful. Instead, since it is the firms who compete in international markets⁹, the entire framework of competitiveness would revolve around the study of the firm. “...industrial success was founded on behaviour of firms, not on the decisions of governments”¹⁰. The list of products (industries) identified is in Appendix A.

Objective & Scope Of The Study

The **objective** of the project is to evaluate the export competitiveness of Indian textile and clothing sectors. Because Indian textile and clothing sector is predominantly cotton based, this study would focus mainly on the cotton textile and apparel, and look at the entire value chain from fibre to garment and retail distribution.

⁷ Data for this section has been obtained from Expert Committee-GOI [1999].

⁸ In all fairness, the reason for this lay also in the strong home-market bias in India’s policies, as a result of which India frittered away her strong position in global trade in textiles. From having an export share of 13.8% in 1950 (second largest exporter), its share declined to 8.9% by 1959. Keesing & Wolf [1980]

⁹ Porter [1998].

¹⁰ Kay [1996].

With the aforementioned objective in mind, this study has first identified the products in Indian export basket which have shown a promising growth in value, or in unit value¹¹ and have a considerable weight in the Indian export basket on the basis of recent performance of Indian exports of textile and clothing sectors in the US and EU markets.

Research Methodology

In order to evaluate the demand-side of Indian textile and clothing exports, the study has analysed the competitive performance of Indian exports of the 'identified' products in the US and EU markets. It has also been used to highlight the role of emerging trade policy environment- specifically, the role of discriminatory rules of origin in Regional Trading Arrangements [RTAs], tariff peaks and environmental and labour standards- as market access issues relevant to textile and clothing exporting countries.

To assess the supply-side factors of export competitiveness, a preliminary interview was conducted with a few exporters. The interview sought their views and opinions chiefly in respect of the supply-side bottlenecks that they are facing in India. The supply-side framework is based more on opinions than on data/ numbers. The inferences about the supply-side factors are therefore based on the opinions expressed by exporters of identified products.

Competitive Performance- Operational Definition

In both these markets, competitive performance has been defined through changes in market shares (in value terms) over the years 1995 and 2000. The following twin-criterion was employed to identify export-competitive products.

A product is said to be export-competitive if:

1. The growth rate in unit value of the product imported from India exceeds average growth rate in unit value of the product from all suppliers in a market (US/EU), AND
2. Its market share grows over the period 1995-2000.

However, there are two additional qualifications that need to be borne in mind.

¹¹ It is important to note that unit value of exports is not truly a reflection of the price of the underlying exported product alone. Often, to obtain quotas, higher unit values are quoted by exporters, and a portion of the unit value is either adjusted through exports to non-quota markets, or export of non-quota products to the same importer. The actual price, thus, being paid by importers may be much less than what gets recorded in government books of account. However, since there is no objective way of getting data on the prices actually paid by importers (unofficially), the study relies on unit values as reflecting the true export price.

1. To the extent market share is a function of quotas, it may so happen that some countries' market share declines over time only because their exports are constrained by quotas.
2. Because the market share-based competitive performance has been evaluated in value terms, the effect of exchange rate movements on export competitiveness (and revealed in market shares) cannot be ruled out *a priori*.

All value data is reported in US\$ terms for the two years 1995 and 2000. During this period, the value of US\$ declined by almost 13%, if deflated by consumer price index in the US¹². The data in the tables have been reported in nominal terms, and analysis made on that basis, since they are all reported in US\$ and are equally therefore affected.

Using the twin-criteria of export-competitiveness, all selected products are classified into the four categories of leaders, gainers, losers and outliers.

		Growth rate in UVR	
		<i>Higher than average</i>	<i>Lower than average</i>
Market Share 1995-2000	<i>Increased</i>	Leaders	Losers
	<i>Declined</i>	Gainers	Outliers

II. GLOBAL TRADE IN TEXTILE AND CLOTHING: INDIA'S COMPETITIVE PERFORMANCE

During the MFA period, the textile exporters from industrial countries and those from developing countries merely changed shares between themselves during the 24 years period. The share of industrial countries declined by almost as much (19.2%) as was the gain in the share of developing countries (18.8%). Clothing exporters¹³, however, exhibit significant changes, with the share of top 13 exporters having declined by 13.8%. New entrants have come in as well as some old ones have been knocked out. Of these new entrants, most- if not all- are from developing countries, since the share of industrial countries has declined during the period, and that of developing countries has increased. The countries that are gaining share in clothing exports are the ones whose industries are integrated to one or the other advanced country through some policy-induced preferential arrangements. Mexico, Caribbean region, East European countries and Mediterranean countries are capturing much of the space vacated. There has been a much deeper globalisation in clothing than in textiles. Indeed, that has been one of the principal reasons for the developed countries agreeing to an eventual phase-out of MFA quota in the UR of negotiations.

¹² International Financial Statistics, IMF

¹³ Textile defined as SITC 65 Rev. 2, and clothing defined as SITC 84 Rev. 2.

During the MFA period, (between 1973 to 1997, to be precise), while in textiles, there was an inexorable shift away from developed countries and to developing countries at large, in clothing the shift away from developed countries is increasingly being grabbed by 'preferred' developing countries¹⁴. Thus, in clothing, the non-preferred group of developing countries is fighting amongst themselves for a pie that is increasingly declining. One should expect a much higher level of intra-industry and intra-firm trade in clothing than in textiles. This is entirely compatible with the fact that it is the trade in clothing that is growing faster than that in textiles. And this trend is likely to deepen, as clothing retailers consolidate, and Outward Processing Trade (OPT) traffic increases. The opportunity clearly lies much more in clothing, though the caveat is that the exporting country would have to achieve the 'preferred' status, and integrate its manufacturing with that of an importing country¹⁵ in order to continue exporting to the restricted markets. The pressure to export would intensify in the years to come since 80% of additional output during 1995-2005 is expected to be located in developing countries. On the other hand, only 50% of the additional fibre consumption would originate in developing countries.

Trade in Nineties

During the decade 1990-2000, textile trade grew at a cagr of 4%, after having grown at a rapid 15% annually during the quinquennium of 1985-90. The growth rate turned negative in 1998 and in 1999 following the East Asian crisis, but resumed to a robust growth of 7% in 2000.

Clothing trade grew at a faster rate compared to textile, and clocked 6% annual average rate during the ten years from 1990-2000. It is noticeable, that, *on an average*, clothing trade grew at least as rapidly as textile trade in all years since 1980. It is therefore not surprising that the share of clothing trade in total textile and clothing trade has been rising and now stands at 56%, higher than 50% in 1990.

The Macro Picture of US Market for T&C Imports¹⁶

US Import Trend

In terms of MFA fibres, the USA imported 32.9 billion square metre equivalent (sme), worth US\$ 71.69 billion of MFA fibres in the year 2000. It was the second largest importer of textiles and clothing defined in MFA terms, importing 21% of world import. Out of the total MFA fibre import value, 80% was in the form of apparels and the rest 20% was non-apparel (textiles). Yarn, fabric and made-ups constituted 10%, 39% and 51% of total textile imports for the year. On an average, every sme that the US imported in 2000

¹⁴ Countries who have some kind of arrangement with the restricted markets (US, EU and Canada), that allows them preferential access to these markets.

¹⁵ For instance, could India be an OPT destination for EU or US? This issue was raised long back in the context of Indian garment exports. Mohan & Chatterjee [1993]

¹⁶ The detailed analysis of India's competitive performance has been excluded from here in view of space constraint. That appears in the ICRIER Study Report.

was worth US\$ 2.18. US imported US\$ 37.17 billion worth cotton fibres, which was 52% of all MFA fibres imported, at a unit value of US\$ 2.51. Man-made fibres constituted 38% of all MFA fibres imported and had unit values of US\$ 1.61. Rest was silk and other vegetable fibres which constituted 10% of total MFA fibre imports in 2000.

In 2000, the US imported US\$ 57.2 billion of apparels with average unit values equal to US\$ 3.57 per sme. 56% of these, valued at US\$ 32.01 billion were cotton apparels, and only 34% were mmf apparels. Less than 10% were apparels made from silk and vegetable fibres. The average unit values of cotton apparels were higher at US\$ 3.64 per sme compared to US\$ 2.98 per sme.

US Import Quota Relative To US Market¹⁷

This information would throw light on the intensity of competition in different categories that the US market would witness post-2004. For instance, in categories where the import quotas form a higher percentage of total US market size, one should expect relatively lower intensity market-war compared to the categories in which the quotas in 2004 form a small share of US market. Consequently, one might also expect a greater industrial turmoil in 2005 in the latter compared to the former. See table 1.

Among the cotton/mmf apparel categories, there exists a longer protectionist period¹⁸ in categories such as cotton knit shirt, dresses, cotton trousers, underwear and W&G mmf suit with the share of quota to US market size, even in 2004, being only 25%, 57%, 31%, 14% and 37% respectively. These items could be conceived of as ‘sensitive’ categories, which are likely to witness cut-throat competition on the one hand, and increased use of WTO compatible trade remedies on the other. On the other hand, categories where relatively less action- in terms both of ‘market-war’ and increased incidence of WTO trade remedial actions- is likely to take place are M&B woven shirts, W&G woven shirt, cotton sweater, skirt, Nightwear, mmf knit Shirt, M&B mmf suit and mmf trouser.

India’s Competitive Performance in the US¹⁹

1. Of the eight cotton apparels, India’s market share (in 2000) in US import market exceeded 10% in cotton dresses (336), W&G woven shirts (341), and cotton skirts (342). Market share grew in 336 and 341. In 336, India exported higher quantity at reduced prices, while in 341, India moved up the value chain. But the US import market grew strongly in 341 and 342, and not as much in 336. However, in 341, the size of quota is close to the size of US home market, whereas in 336, about 43% of US home market would be opened only on 1st January 2005. Therefore, not much growth should be expected in 341 in terms of US market size. Besides, there are no current threats from ‘preferred’ developing countries in 341 yet. Hence this is one category

¹⁷ Source: Baughman & Olson [1997]

¹⁸ Which is another way of stating that in these categories, the quota phase-out schedule is considerably ‘backloaded’.

¹⁹ For MFA (ATC) product-wise competitive performance, see the ICRIER Study Report

where India should very clearly focus, since the competitor countries are essentially Asian. The one big threat, would be China. Currently, China exports at an appreciably higher uvr compared to India. The evidence from 1995-2000 indicate that China has upgraded its 341 faster than India has. If China continues on that path, India may not worry too much, since the gap between Indian and Chinese prices would be quite significant. But then, if India also upgrades its product, as it has done in 341, competitiveness based only on price will be extremely risky.

2. In descending order of uvr, Indian exports of the chosen cotton apparels belong to between 40 and 50 percentile, among all supplier countries for a given MFA product category. Which means India operates in the low value segment in most cotton apparels in the US. However, it is interesting to note that there are three cotton apparels whose uvr have been between percentiles 55 and 60. They are knit shirts (cat 338) and trousers for M&B (cat 347) and for W&G (cat 348). Incidentally, US imports of these products is growing fastest among all cotton apparel categories. However, India has lost market share in all except 347 during 1995-2000. In 347, its unit prices have grown fastest among top ten suppliers. And almost 70% of US market remain to become quota-free only on 1st January 2005. India must build up its strength in this product category quickly to capture the huge market that would suddenly open in 2005. Quite apart from 'preferred' group of developing countries, Pakistan is one country which has done exceedingly well in 347, and has been building its domestic manufacturing facilities very fast. But Pakistan is not yet as much of a threat since its unit value is considerably lower than India. China, however, is likely to emerge as a big threat to India in 347 since their uvr is closer to India's and they too are upgrading their product rapidly. Their market share declined due wholly to quota constraint. But they seem to be producing less numbers, and better quality of 347 for US export market. They would pose a big challenge to India.
3. In cotton apparels, the competitor countries- aside from 'preferred' developing countries- are Indonesia, Malaysia, Hong Kong, Philippines, Indonesia, Sri Lanka and Bangladesh. From among these, Bangladesh is the lowest cost supplier in almost all categories. In view of the threat from 'preferred' developing countries, India must move away from competing only on the basis of price, since the share of this segment is any case declining with the 'preferred' countries growing rapidly in this segment. And when India upgrades its value, it would have to contend with strong Asian competitors like Hong Kong, China and South Korea, whose performance has been constrained due to quota ceilings. But once the quotas are removed, India may find itself again losing in this upgraded market segment due to sheer size of these countries' exports. The important lesson for India therefore is that it must not only upgrade its values, but also begin to find ways of competing increasingly on non-price factors.
4. Within textiles, India has done commendably in made-ups (362 and 363). In towels (363), Indian performance has been excellent. It was the largest supplier, and yet managed to grow fastest in US import market among the top ten suppliers. Besides, major portion of its growth has come from value upgradation, rather than just quantity growth. This is an item of great potential for exports to US. Moreover, 47% of US market remains to open on 1st January 2005. India's export in made-ups category 363

is expected to grow phenomenally in post-2005. Threat from price-based competition is small since India is already among the relatively high price suppliers among top ten suppliers. Mexico, Israel and Sri Lanka are building huge domestic manufacturing facilities, but they are all low-price segment players. This is likely to be India's star performer.

India has done well in 362 also in terms of improved market share, as well as higher unit prices. However, the one big threat, which is India's close competitor, is Mexico. And India can no longer afford to compete only on price-based factors, since Mexico would have an advantage over India not only until 2004 (due to quotas) but also beyond (due to tariffs). India must rapidly develop non-price based competencies in this item of great potential. Countries such as Turkey too are building up massive domestic facilities for manufacturing 362, but they are very low price segment players and no threat to India at all.

5. In all chosen fabric²⁰ exports to US, India has lost market share during 1995-2000. Except cotton sheeting fabric (313), India did not grow even in quantity terms. So why haven't quotas protected Indian fabric exports in the US market? It would be useful to mention here that the protection by quotas does not imply assured export growth, as is often (mis)understood. Exports are a function of export order. However, quotas provide protection in an indirect fashion, by prohibiting other supplier from exporting more than they are competitively capable of. From an importer's perspective therefore, all the order that the importer may like to place with an exporter may not be importable from that exporter due to quota limits on the exporter. The importer would therefore be compelled to place the 'overspill' order with someone who is second most competitive in the product. In this sense, the second most competitive suppliers' exports are "protected" to the extent of the limited quota supply with the most competitive supplier²¹. This indeed is the sense in which quota 'protect'. Alternatively, it can be said that, but for quotas, the exports of Indian fabric to US would have been much lower. In this sense, quotas have indubitably protected the exports of Indian fabric in the US market during the quinquennium. Indian fabric exports have not revealed to be competitive in the US market²².

²⁰ Fabric of yarns of different colours (218), duck fabric (219), blue denim fabric (225), cotton sheeting fabric (313) and cotton twill fabric (317)

²¹ Often, the share of and growth in exports to non-quota markets are seen as a proxy for whether quotas protect or they are constraints. This may not give the correct picture since the product-mix being supplied to the quota and non-quota markets might be different. Indeed, this is the case in Indian exports. This product mix is a function of the nature of import demand. In quota markets- which are all developed countries- demand for cotton apparel is much higher, whereas in non-quota markets (most of which are developing countries), the demand for lower value synthetic based products is higher. Moreover, often exporters push exports to non-quota markets only to get a higher quota allocation in the following year under the 'past performance criterion' of quota allocation.

²² The impact of NAFTA must be kept in mind while reading too much here. While textile import into US has been growing at 10% on average during 1990-2000, intra-NAFTA imports grew by 16%, whereas extra-NAFTA imports grew only by 7%. The US import of fabric in any case has been declining from non-NAFTA sources.

All Indian fabric chosen for this study are low-end fabrics, and the competitors are some of the ‘preferred’ countries like Mexico and Turkey, and Asian countries. India’s uvr has been declining, but the intensity of price competition in these products could be gauged from the fact that in all fabric products, the real prices of US imports have declined.

6. In the 11 apparel categories- both cotton and mmf- China is not India’s close competitor since uvr of its exports to US is significantly higher than India’s, and these two countries operate in quite different price-segments²³. In 339 and 347, where it is India’s close competitor, its uvr is higher than India’s. However, China is a strong competitor of India in cotton fabrics, even though in all chosen textile categories, its uvr is (marginally) higher than India’s. The major threat from China therefore lies in fabric exports, specially if China chooses to devalue. India is one of the countries whose exports would be severely affected if China chooses to devalue its currency. And that is not an unrealistic scenario. Indian fabric exports to US would be almost wiped out. The lesson becomes stronger. India must not only upgrade in fabric exports, but also seek newer non-price criterion for competing. Or, as a country, perhaps begin to focus more on apparel and made-ups exports.

India’s Competitive Performance in the US- A Summary

The following tables enable an evaluation of the export-competitiveness of Indian textile and garment exports to the US.

Competitive Performance of Indian Cotton Textile Exports in US market						
Description	Category	GR in mkt share	Rank, 2000	GR in UVR, India	GR in UVR, World	GR of US Tot. Imp
Fabrics						
fab of coloured yarn	218	-35%	5	-39%	7%	-6%
Duck	219	-5%	1	-24%	-24%	-1%
Blue Denim	225	-61%	2	-38%	-4%	-29%
Sheeting	313	-10%	4	-18%	-8%	-8%
Twill	317	-40%	6	-21%	9%	32%
Made-Ups						
Bedsprds & Quilts	362	22%	4	33%	-43%	69%
Terry Twl	363	195%	1	116%	19%	108%

²³ Indeed, there is little doubt that nothing prevents China from lowering its prices to outcompete Indian exports globally. This indeed has happened in the first nine months of 2002, when reports suggest that Chinese unit values have declined by an average 37%, whereas their garment exports grew by more than 150% during the period. However, as a national strategy, decline in prices to capture market share may not be sustainable, unless it is owing to cost-reduction. And factor cost-based export strategy is unsustainable in the long run.

Competitive Performance of Indian Cotton Garment Exports in US market						
Description	Category	GR in mkt share	Rank, 2000	GR in UVR, India	GR in UVR, World	GR of US Tot. Imp
Babies Gmt	239	113%	18	11%	-8%	85%
Dresses	336	28%	2	-6%	-16%	12%
MB Kt Shirt	338	-19%	3	38%	-25%	88%
WG Kt Shirt	339	-40%	12	26%	-19%	144%
MB Wn shirt	340	9%	3	-2%	-1%	3%
WG Wn Shirt	341	10%	1	15%	4%	31%
Skirts	342	-9%	2	3%	1%	54%
MB trouser	347	35%	25	74%	10%	85%
WG trouser	348	-7%	30	39%	10%	140%

Using the twin criteria, the following summary table identifies the ‘leaders’, ‘gainers’, ‘losers’ and ‘outliers’ among Indian exports of textile and clothing to the US.

Competitive Position	MFA Product Categories	
	Textiles	Garments
Leaders	362, 363	239, 336, 341, 347
Gainers	None	338, 339, 342, 348
Losers	None	340
Outliers	218, 219, 225, 313, 317	None

As can be noticed, almost all of Indian garment exports to the US are leaders, or gainers, only exception being 340 which is expected to be a loser. The competitive situation in textiles is contrasting vis-à-vis the US market. It is very clear that except made-ups- which are the leaders in the USA- Indian textile export to the US has no future. And that is very much along expected lines. All important textile product categories are outliers, but *not* losers. In other words, their market share is declining, as well as Indian textile producers are not showing any signs of investing in textile products that they export to the US market. The tables above, showing the competitive performance of Indian textiles in US, tells us why are so many Indian textile products ‘outliers’. It can be noticed from the tables that unlike the rapid growth rates in garment imports, the US import of textiles (save made-ups) has been declining. In other words, as we have seen above also, US imports of textile is dwindling. One cause is the growing US outward processing trade in North American Free Trade Association (NAFTA) and Caribbean Basin Initiative (CBI) regions. Indeed, there has been some evidence of Indian fabric exports now getting diverted to countries that enjoy preferential access to the US market (such as Mexico and Bangladesh).

Macro Picture of EU Market for T&C Imports

EU²⁴ Import Trend

Of the US\$ 65.9 billion textile and clothing²⁵ (T&C) imported by EU15 from extra-EU sources in the year 2000, US\$ 23.5 billion (36%) was imports of textiles and US\$ 42.5 billion (64%) was import of clothing. Out of the total T&C imports, US\$ 29.4 billion (45%) was from restrained suppliers, while US\$ 20.9 billion (32%) was from preferential suppliers²⁶. Interesting point to observe here is the annual change in EU imports from these sources. While the total EU imports increased by 4.39% during 1990-2000, its imports from preferential suppliers grew by 8.95%, while that from restrained sources grew only by 4.9% (reflecting quota restraints). Clearly, the preferential suppliers are eating away the share of non-preferential suppliers.

Another interesting observation from the table is that the share of intra-EU imports is declining, and being replaced by extra-EU imports. Extra-EU imports as a share of intra-EU imports was 69% in 1990, and it increased to 115% in 2000. This is good news for rest of the world, and specially for the countries that are among the list of preferential suppliers to EU.

In the year 2000, EU imported US\$ 23.5 billion textiles from extra-EU sources. Of this, US\$ 5 billion originated in preferential countries and US\$ 11.4 billion in restrained countries. The growing tilt towards imports from preferential suppliers is evident here since the total textile imports during 1990-2000 grew by 2.07%, whereas that from preferential sources grew by 9.25%. Imports from restrained sources grew only by 5.03%. Almost 21% and 49% of textile imports originated in preferential and restrained sources respectively. The share of extra-EU imports as a percentage of intra-EU imports increased from 50% to 73% from 1990 to 2000. This is good news for textile exporters, specially preferential suppliers.

In the case of clothing, the tilt towards preferential suppliers is not as strong as in textiles. While the total clothing imports increased by 6% during the decade of 1990s, that from preferential and restrained sources increased by 9% and 4.8% respectively. However, unlike in case of textile imports, in the case of clothing, almost 43% and 36% originated in preferential and restrained sources respectively. This is explained by the increasing significance of Outward processing Trade (OPT) between EU and its neighbouring

²⁴ EU trade data for period 1995 onwards refer to trade by EU-15 countries, viz., Austria, Belgium, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Luxembourg, Netherlands, Portugal, Spain, Sweden and the United Kingdom.

²⁵ Textile and clothing refer to those items that are covered under the ATC.

²⁶ Preferential suppliers include 10 exporters: Bulgaria, Czech, Hungary, Poland, Romania, Slovak, Malta, Morocco, Tunisia and Turkey. Restrained suppliers include 17 countries: Argentina, Brazil, Chinese Taipei, Hong Kong, China, India, Indonesia, Korea Rep., Macau (China), Malaysia, Pakistan, Peru, Philippines, Singapore, Sri Lanka, Thailand and Vietnam

regions²⁷. The share of extra-EU imports as percentage of intra-EU imports increased from 101% to 170% between 1990 and 2000. Like in textiles, this is good news for clothing exporters to the EU, specially the preferential suppliers.

The high growth of EU imports from its preferential suppliers and the stringent quota constraints on restrained suppliers is more glaring when one looks at the EU import data in quantity terms. For instance, in textiles, whereas the total extra-EU imports grew by 4.6%, that from preferential and restrained suppliers grew by 10.9% and 7.3% respectively. Similar data for clothing is 9.8%, 11.9% and 6% respectively. The quantity restraints are more binding in clothing than in textiles.

Thus, EU's domestic producers are unlikely to retain their existing share in post-quota world. Besides, preferential countries took up major portion of the share that the EU vacated. This was a result of bilateral arrangements of these countries with EU, as well as because of quota restriction on restrained suppliers. Despite this, the amount of intra-EU trade which in 2000 was US\$ 32 billion and US\$ 25 billion in textiles and clothing respectively, is by itself a big market for a country like India whose total textile and clothing exports are in the range of US\$ 12-13 billion.

Limitations with EU data

The EU does not report the data on prices/values for ATC (previously MFA) product categories. It reports the data for ATC product categories only in quantity terms. Hence, the methodology followed for identifying India's competitors in the case of US-using uvr- cannot be employed here based directly on EU reported data.

Secondly, the ATC product categories are not classified on the basis of nature of fibre, or any such other system of classification. (In this sense, the product categorisation in the US is more systematic.) Hence it is not possible to directly obtain the share of fibre-based apparels and textiles in total EU imports. It is not possible to approach this limitation by presuming that the Indian competitors in the US market are, by and large, the same as in the EU market. This is because the ATC product categories are different in case of US and of EU. There is no one-to-one correspondence between the product definitions of EU and of US in terms of ATC categories.

In absence of data on prices for MFA product categories in EU imports, no conclusion can be drawn regarding competitive performance of India and its competitors in different product categories *directly on the basis of data reported by Eurostat*. However, an attempt has been made to compute the value data from Eurostat's Comext database²⁸.

²⁷ During 1990-99, EU imports from OPT countries (from among preferential countries) increased by 5.04%, compared to 4.8% from restrained suppliers, and 10.13% from preferential suppliers. Source: ITCB document dated 4 September 2000.

²⁸ The author is extremely grateful to Mr. Chaitanya Kaushal of the EU Delegation Office in New Delhi for providing the EU databases.

India's Competitive Performance in the EU

The following table gives an overview of the import penetration of the select categories along with India's performance in the EU market in each category.

Product Category	GR of EU imports		GR of imports from India			Rank, 2000	Extra-EU imports (%)	
	val	uvr	val	uvr	mkt share		1995	2000
Yarn								
1	19%	0%	45%	20%	32%	2	82%	90%
23	7%	-34%	23%	-18%	17%	3	26%	35%
fabric								
2	0%	-15%	-15%	0%	-15%	7	29%	29%
2a	4%	7%	7%	-1%	3%	14	19%	20%
3	-2%	19%	-25%	2%	-23%	11	35%	28%
3a	6%	31%	52%	14%	49%	17	16%	22%
Made-Ups								
9	21%	1%	15%	9%	-7%	5	51%	68%
20	38%	8%	12%	12%	-44%	4	48%	57%
39	34%	-17%	49%	21%	22%	2	47%	60%
Garment								
4	45%	16%	30%	23%	-26%	6	37%	45%
5	42%	36%	56%	18%	24%	20	33%	41%
6	48%	3%	48%	13%	0%	22	35%	46%
7	16%	-62%	-25%	4%	-48%	4	46%	50%
8	-25%	13%	-34%	17%	7%	3	64%	91%
15	29%	-17%	33%	-6%	5%	27	29%	45%
26	2%	-56%	-42%	-2%	-45%	2	41%	47%
27	24%	-6%	-44%	25%	-88%	8	35%	47%
29	8%	-20%	11%	1%	3%	5	33%	49%

Source: Author's computations

What are the inferences one could draw from the table above?

1. Very much in consonance with what has been noted above in the section on EU import trends, it is clear that EU's imports of yarns and fabric is on the decline whereas that of made-ups and garments is noticeable. Except category 26 in garments, EU import of all other garment categories have grown quite appreciably in value terms.
2. No clear picture can be drawn in respect of the uvr of total EU imports. All sectors of yarn, fabric, made-ups and garments show a mixed picture. Interestingly, the uvr of synthetic fabrics (cat. 3 and 3a) has grown quite significantly.
3. India has performed reasonably well in the EU in terms both of value and uvr. Look at the table below which classifies the selected ATC products into 'leaders', 'Gainers', 'Losers' and 'Outliers'. The leaders are yarn- both cotton and synthetic- and synthetic table linen. It is interesting to note India's good performance in synthetic products (yarn and made-ups) in textiles. Among garments, the leaders are all W&G categories- suits, coats and jackets and skirts. The products whose exports to EU have been constrained by quotas, and hence are likely to gain from quota dismantling in 2005,

(Gainers) are cotton bleached fabric and woven bed linen. W&G dresses and blouses, and knit shirts and woven trousers are the garment categories that are expected to gain due to quota dismantling in 2005.

Competitive Position	MFA Product Categories	
	Textiles	Garments
Leaders	1, 23, 39	8, 15, 29
Gainers	2, 9, 20	4, 6, 7, 26*, 27
Losers	2a, 3a	5
Outliers	3	Nil

The losers are bleached fabric made of cotton as well as synthetic fibres/yarns, and knit jerseys/pullovers. That synthetic fabric is an outlier is not really surprising to anyone who knows India's fibre strengths and weaknesses. Woven shirts is another category that is likely to become a winner once the quotas are lifted. These would become clearer from product-wise analysis.

4. Except yarn and made-ups, the share of extra-EU imports is, on average, less than 50%, save category 8 (M&B woven shirts). The share of extra-EU import of fabric and garment is less than half. Extra-EU import of fabric in fact is very small. But the reason for that perhaps lies in the fact that the total fabric import by EU has been almost stagnant in the five-year period. The story in cotton yarn is a little different since almost entire cotton yarn requirement of EU is imported from extra-EU sources.
5. The observation of interest to suppliers like India to EU is that the share of extra-EU imports in almost all selected ATC product categories is on the rise. The only category where the share of intra-EU imports has increased is synthetic fabric and India is an 'outlier' here.

In all other categories, specially in all garment categories, the share of extra-EU imports has increased significantly in the five years. And that should be music to the ears of garment suppliers to EU. But it must simultaneously be remembered that even within the garments category, the uvr of extra-EU imports is higher than that of intra-EU imports of the same categories. The message is quite clear. EU is importing less of yarn/fabric from outside, but more of made-ups and garments. And the uvr of both made-ups and garments from extra-EU sources are higher than that from intra-EU sources.

India is a high-ranking exporter to EU of yarns, made-ups and some categories of garments. Export of Indian fabric to EU in future is likely to further slow down substantially. Made-up exports to EU, like in US, are a very big opportunity for India. In garments, Indian exports of W&G skirts and suits/ensembles is another big opportunity where India has shown good performance in the EU market over the five years 1995-2000.

III. Emerging Global Marketplace

The manner in which ATC quota phase-out has been implemented leaves much to be desired. It is considerably **backloaded**, and on a large number of products of interest to developing countries (cotton apparels for instance), the quotas remain in place until 31st December 2004. Out of the total number of quotas as on 1st January 1995, US and EU eliminated none (zero) during the first stage. During the first three stages together, they have removed only 56 and 52 out of 757 and 219 quotas respectively. This comes to 7.4% and 24% respectively.

Moreover, the **back-to-back anti-dumping investigations, and investigations against products already under quota** have revealed that the public posture of the developed countries notwithstanding, there is no change in heart from what prevailed when the MFA was put in place. Strong protectionist tendencies are apparent. "...most analysts of the US industry expect that these [anti-dumping and countervailing] actions will be increasingly used as products are integrated into the GATT..."²⁹. An interesting development that should be noted is the enactment into law of the **Byrd Amendment** in the US, properly titled as "Continued Dumping and Subsidy Offset Act of 2000"³⁰. It provides that "whenever there is an AD investigation or CVD in place, the customs must deposit the duties collected into a special account. This amount may be distributed to 'affected domestic producers', which are defined as manufacturers, producers, or worker representatives who were petitioners or interested parties supporting the AD or CVD petition that led to its imposition"³¹. Labour unions and a number of industry interests in the US lobbied to ensure the passage of this provision.

Quota **circumvention** is detrimental to genuine business and hence must not be condoned. Of late, however, there has been a disproportionate emphasis on this issue by the developed countries. The documentation requirements in order to prove the country of origin, in US for instance, is extremely difficult and costly for small and medium size exporting firms. Whereas, according to the US customs own report, actual shipment seized/detained on account of (suspected) transshipment in 1999 was only 0.068% of US total imports!

²⁹ Baughman [1997]

³⁰ The Dispute Settlement Body of the WTO has recently ruled this legislation as WTO-incompatible. However, US has expressed its intention to appeal against this ruling.

³¹ ITCB document

Newer methods of protecting domestic industry are constantly being evolved. **Labour standards, environmental friendliness, product safety standards, documentation formalities and rules of origin** are all being sought to be used to thwart the very ethos of the fair trading principles of the WTO. "... the changes [in **Rules of Origin**] introduced by the United States had adversely affected market access possibilities in some products, by disturbing security and predictability related to the exports of the products concerned, and that they disrupted trade under ATC... while this bilateral solution [US-EU agreement] rectified the situation mainly with respect to products of export interest to the European Community, the changes failed to restore the situation with respect to a number of products of substantial export interest to restrained members."³².

Continuing efforts are being made through a variety of bilateral agreements to use **environment-friendliness as a weapon of protectionism**. According to the ITCB, a Discussion Paper, issued by Directorate General for Trade of the European Commission in January 2000, argued that, "following elimination of textile quotas, a shift in production from industrialised countries to developing countries would create negative environmental impacts in the form of increased water and air pollution". The paper advocated "flanking measures" to avoid such perceived negative impacts³³. a number of eco-labeling schemes have sprung up designed to promote products based on technologies that reduce water pollution in key production processes³⁴. Perhaps the most significant eco-label is the one launched by the EC, announced in EC Regulation of March 1992. The objective of this programme is "to award community wide eco-labels to promote the design, production, marketing and use of products which have a reduced environmental impact during their entire life cycle, and to provide to consumers with better information on the environmental impact of products".

Over and above these is a growing trend of private initiatives because of whom the non-price factors of competitiveness are becoming more and more important. Worldwide Responsible Apparel Production (WRAP) and Apparel Industry Initiative (AIP) are some of the global movements towards **cleansing the global manufacturing and trade** in textile and clothing sectors. And this post-consumerism demand has begun to force a large number of developing country exporters to adhere to such norms and get their factories and systems 'ethically certified' before they could be eligible to supply some of the world's biggest retailers. It is in this 'buyer-driven global commodity chain' that India has to position itself.

The extent of **regional flows** in some of the major RTA can be gleaned from the trade in NAFTA region during the 1990s. For instance, during 1999-2000, while the total import of textiles into NAFTA grew at 10% pa, intra-NAFTA imports grew by 16%, whereas extra-NAFTA imports grew by only 7% pa. Similar figures for textile exports are

³² WTO document no.G/L/459, dated 31 July 2001, p.224

³³ The paper also postulated that liberalisation may also result in 'ill-regulated employment of children and vulnerable female workers in developing countries".

³⁴ According to ITCB, there has not been much authoritative assessment of their actual impact on consumer behaviour, though it appears that not much significant impact has been felt so far.

9% for total exports, 15% for intra-NAFTA exports and 3% for extra-NAFTA exports. Total clothing imports grew by 9%, whereas intra-NAFTA clothing imports grew by 25% pa, compared to only 8% pa growth rate of extra-NAFTA imports of clothing³⁵. Clearly, NAFTA is becoming an increasingly inward-looking region in terms of trade. This does not augur well for non-member countries such as India. Trade diversion of exports is heavily concentrated in textiles and clothing sectors. Mehta [1995] discusses in some detail the impact of NAFTA for textile and clothing sector of Asian countries. It clearly states that the “textile sector of Asia is certainly one of the sector which will be adversely affected (due to NAFTA)”. This would be due to the trade preferences³⁶ that NAFTA gives to a large number of Mexican products (for intra-bloc exports), which would tend to substitute exports from Asian developing countries.

However, in this context, the frightening reality is not just proliferation of PTAs, but the fact that India is not envisaged to be a member of any of the three most important emerging RTAs, viz. EU 15 (soon to expand into EU 28), NAFTA (likely to be enlarged into the FTA of the Americas) and Japan which is poised to negotiate bilateral FTAs with several countries and later become the nucleus of an East Asian FTA³⁷.

Quite aside from some of the State-led changes, the **global marketplace** in textiles and clothing has witnessed several new features. Retailers are becoming stronger and are wielding more power over manufacturers. Channel creators are the growing lot, and command immense power due to their proximity to and understanding of the consumer. One outcome for suppliers would be shorter runs, greater product variety and, almost inevitably, lower margins as retailers shop around for the best terms. Retailers themselves will face greater threats, however, as consumers become more savvy, and information asymmetries disappear.

Furthermore, under the era of managed trade, too many textile and clothing manufacturers took a very narrow view of their production and market environment. They relied on selling in protected domestic markets and never needed to see the big picture. This is set to change. The textile and clothing industry is internationalising rapidly. An awareness of global trends will be more important from 2005 and beyond. To stay and grow in such markets would require new set of rules and new tools. This is the time to develop such tools and hone the skills required in the times to come. India needs to decide which direction it wishes to take, and then accordingly prepare its strategic plan.

³⁵ WTO document G/L/474, dated 12 September 2001. Tables 5 and 16

³⁶ Such as zero tariff rates for Mexico’s exports to US/ Canada, and no non-tariff (e.g. quota) barriers, unlike in case of Asian exports to US/ Canada. The yarn-forward or fibre forward (in case of yarn) RoO in NAFTA makes it extremely difficult for NAFTA non-member countries to take the benefits given to NAFTA ‘originating’ exports. For some products not meeting the NAFTA RoO, there is the “Tariff Preference Levels” which provide exceptions. Moreover, NAFTA has provisions for imposing the tough US standards in respect of environmental and related fields on NAFTA members. However, the interesting point here is that the US would be bearing a substantial cost for improving the standards in Mexico, while no such leverage would be give to non-member countries such as Asian countries.

IV. Domestic Factors Affecting Competitiveness of Indian Textile and Clothing Sectors

The study concludes that Indian exports to the EU and the US are, on the whole, export competitive. Sector-wise analysis of the export performance of Indian textile and clothing sectors to US & EU reveal that insofar as apparel exports are concerned, quota has indeed been a constraint for most of cotton apparels and made-ups that India exported to these two markets. However, the same cannot be said about Indian yarn/fabric exports. Quotas appear to have protected the export of Indian yarn/ fabric to these two markets within the limitations of a shrinking market for both yarn and fabric in US and EU. Indian exports of made-ups has been another area where quotas- wherever they exist- have been binding, and not protecting, the Indian exports to US & EU.

Indian textile and clothing sectors have a tremendous potential, only a portion of which has been exploited due to policy constraints. And where exploited, Indian entrepreneurs have done the country proud. However, there lies a considerable potential that has not been exploited primarily due to government policy marked by ad hocism, fragmented vision, and political opportunism. What are these policy constraints?

[A] Product Specific Cost- Supply Chain Management

Typical cost structure of garments would have materials contributing about 55% of the cost, while fabrication, overheads and finishing constitute 22%, 15% and 9% of the cost of garment³⁸. While fabrication and overheads are a result mostly of garment industry's decentralised structure (and hence require structural reforms to rationalise), fabric cost is a function more of the productivity at the textile manufacturing stages. In India, one big stumbling block to higher garment productivity lies in the structure of the Indian textile sector. With only 5% of fabric being produced in the organized mills, and about 57% being produced in the decentralised powerlooms (over and above the 17% knit fabric), the quality of fabric supply to the garment sector is poor³⁹. And since garment manufacturing is reserved for SSI in India, most of SSI units are small, catering to small order sized seasonal demand for fashion garments in niche products. Their demand for fabric too, therefore is in small lot, which organised mills cannot competitively produce. Besides, with the demand for Indian garments overseas being fashion-driven, production flexibility of a high order is required to switch from one styles/colour to another at short notices. Powerlooms again are better suited as suppliers, compared to organised mills.

1. Factor cost: Despite technological advances, clothing sector remain labour-intensive globally, and hence its manufacturing is secularly shifting away from developed to

³⁷ A. Hoda [2002]

³⁸ Khanna [1991]. The actual costs may vary depending on the ratio of in-house production (higher the in-house production, higher the overheads), and certain value addition features like embroidery which increases the share of finishing cost. However, material cost remains the most important element of cost.

³⁹ The quality of raw material is viewed as representative of product quality in the garments industry. Lal [1999]

developing countries. Textile production has seen considerable technology improvement, but that has only partially restored the comparative advantage of developed countries in textile manufacture.

In the context, therefore, of garment sector, labour cost assumes great significance in production costs. India compared very favourably across the developing countries in terms of low labour costs. Only countries such as Bangladesh, Pakistan and Vietnam's labour costs are marginally lower than India's. However, empirical evidence suggests that low wages are *not* a factor of competitiveness. High wage levels reflect high levels of skill, productivity and automation which in turn, are important factors of export competitiveness⁴⁰. A recent study⁴¹ on Indian garment industry shows that higher wage rates are one of the determinants of export performance of Indian garment units. Export firms paid higher wages to their labour than the 'domestic market oriented' firms. The study attributed this difference in wage rates to the unique and indispensable skills of designers, pattern makers and craftsmen, as well as to better-trained cutters and tailors employed by exporting firms⁴².

The reason for poor productivity in garmenting has been the extremely fragmented structure that has arisen chiefly due to the government SSI reservation policy. This has prevented modernisation, quality investments, scale adoption, and change in product mix from exclusive reliance on cotton garments to mass clothing items based on synthetic and mmf fibres. This has also therefore impeded the growth in exports non-quota markets since non-quota markets like Latin America and Asia are not rich countries, and they demand blended and synthetic garments much more than those in USA and EU. Indian fiscal and customs policy too has discriminated against development of synthetic base in India in line with the government belief that 'synthetic is for the classes and cotton is for the masses'⁴³.

Since this study has also focused on inadequate development of retail industry in India as one of principal causes of low levels of competitiveness across the entire manufacturing value chain, it would be instructive to note the international cost differences between the most important factor input in modern retailing- land. The land cost index per sq. mtr. as a ratio to GDP is very low in most of Asian cities compared to Delhi and Mumbai. See fig. I. This itself is a result of distortions in the land market, and government policies regarding land-use. Such high prices deter the

⁴⁰ Aside from developed countries, there are countries such as South Korea and Taiwan that have still maintained sizeable presence in certain labour intensive products despite rising labour costs. The reasons is that international competitiveness in labour intensive products is derived not just from low wage rate per worker, but low ratio of wage rate to average productivity, i.e., wage cost in efficiency units rather than in crude terms of workers. Higher efficiency of labour (as reflected in productivity per worker) can enable payment of higher wage rate as well as employing larger number of workers. See Tendulkar [2000], Bhavani & Tendulkar [2001] and Kell & Richtering [1991]

⁴¹ Lal [1999]

⁴² This was affirmed during interviews too.

⁴³ Based on this belief, the government has kept excise duty on synthetic and blend products higher than that on cotton products. It has also had very high customs duty in place for raw materials used in synthetic sectors. This has protected cotton from competition against the synthetic sector, and hence also prevented product upgradation in cotton based items.

emergence of large retail showrooms in Indian cities, of the kind that have proliferated in Jakarta, Tokyo, Sydney, Bangkok etc.

2. Cost of raw material (fibre): Until recently, Indian cotton prices have been lower than international cotton prices of comparable varieties due to ban on imports and control on exports of cotton. In fact, in the 1980s, for each of the varieties of cotton, Indian prices were lower than their international counterpart⁴⁴. This gave a cost advantage to Indian textile and garment exporters.

‘Cotton for the masses and synthetic for the classes’ was the implicit belief that underlay the government policy in India. As a result, while cotton prices were not allowed to move up (trade control, and buffer state operations), synthetic fibre was deliberately priced uncompetitively (it was viewed as a luxury fibre for higher income group) against cotton. Despite years of liberalisation, the excise duty, for instance, on PFY is still 36.8% (2000-01), against 9.2% on cotton. Similarly, the raw materials for synthetic fibres have an excise duty at 16%. This discrimination against synthetics is visible in case of customs duty rates also. While effective import tariff on cotton import was 5.5% in 2000-01, it was 48.5% for man-mades⁴⁵. It is not surprising therefore, that the international prices of raw materials (DMT, PTA, woodpulp etc) has been considerably lower than domestic prices. It is projected that, compared to 49% share of cotton in world fibre consumption in 1990, it would reduce to 41.5% in 2005. Share of synthetics, on the other hand, would increase from 39% in 1990 to 51.3% in 2005⁴⁶.

The entire set of issues related to direct cost of inputs and its acquisition by firms is a function of what- in modern terminology- is called as Supply Chain Management (SCM). In a dynamic environment where demand is uncertain and significantly seasonal, where the product life cycles are short, and where the competitive intensity is high—companies that organise for functional integration tend to outperform those that are organised for functional excellence. Supply Chain Management indeed is all about functional *integration*.

SCM refers to "delivery of enhanced customer and economic value through synchronised management of the flow of physical goods and associated information from sources to points of consumption."

The Indian textile and clothing industries have one of the longest and most complex supply chains in the world, with as many as 15 intermediaries between the farmer and the final consumer. Each contributes not only to lengthening of lead times, but also adding to costs. By the time cotton worth Rs 100 reaches from farmer to the spinning unit, its cost inflated to Rs 148. By the time it reaches the final consumer, it costs Rs 365⁴⁷. This is unacceptable if India is to become competitive. The industries would need to develop this

⁴⁴ Ashok Gulati's study [1987] quoted in Chatterjee and Mohan [1993]

⁴⁵ USITC [2001]

⁴⁶ ICAC, Textile Outlook International, cited in CII-Roland Berger [1999]

⁴⁷ About 40% of the selling price of a garment in India gets added up at the garment distribution stage!

SCM perspective and rationalise costs at every stage in the entire supply chain, and not only within their firms, or between themselves and their vendors and suppliers. Hong Kong apparel industry did take this initiative, and has managed to shrink the supply chain in terms of lead times, as well as costs⁴⁸.

The **supply chain in India is extremely fragmented** chiefly due to the government policies and lack of coordination between industry and relevant trade bodies⁴⁹. Table 2 clearly shows the extent of fragmentation of the Indian textile and clothing sectors. It is noteworthy that the countries that are globally competitive are the ones who have a significantly consolidated supply chain. It is also noteworthy that among some of the countries which are not as fragmented -such as Korea, China, Bangladesh, Turkey, Pakistan and Mexico- are India's close competitors in global market for exports. Indeed, the structure of the Indian textile and clothing sectors has been the biggest stumbling block in any effort to reform the industry in India lately. It must be mentioned that it squarely goes to Indian government textile policy's credit as to why such a fragmentation⁵⁰ came about in the first place.

Conversion Efficiency

This is a function of the technology employed and the organisation skills, aside from the softer areas of strategy and knowledge management.

Level of Modernisation in Indian Textile and clothing sectors

The level of technology in the spinning sector is relatively better compared to weaving sector. Still, about 65% of installed spindles are more than 10 years old, and OE rotors account for less than 1% of total installed spindles. India was the world's leading buyer of spinning equipment during 1989-98, accounting for 28% of global shipments. Spindles purchased during this period accounted for 33% of total installed capacity, while 68% of OE rotors were less than 10 years old.

The level of technology in the weaving sector is low compared to other countries of the world. Of the 1.6 million powerlooms installed, less than 1% are shuttleless looms. In organised mills sector, only 5.8% are shuttleless looms, compared to 80% in US, Taiwan and Korea, and 62% in Pakistan. The rate of modernisation also has been very slow. See table 3. The new shuttle and shuttleless looms installed in India during 1989-98 accounted for only 1.6% of total installed capacity in 1997, with most of modernisation occurring in organised mills. Compare this to countries such as Mexico where modernisation rate was 41%.

⁴⁸ VITAMIN [1999]

⁴⁹ Singhal [2000]

⁵⁰ For a discussion of structural anomalies in the Indian textile and clothing sectors, please see the Study Report.

The levels of investment in Indian apparel sector are very low. See table 4. The average investment in a machine in an Indian factory was \$29,760 compared to \$2.5 million in Hong Kong and nearly \$1 million in China. This reflects the smaller size of the Indian firm, which has an average of 119 machines compared to 698 in Hong Kong and 605 in China. Investment per machine is very low in India at \$250 compared to \$3510 and \$1500 in Hong Kong and China. This is due to Indian firms having a much higher proportion of manual machines, and even the power-based machines are not as sophisticated.

Since it is the cutting operation in garmenting which is capital intensive⁵¹, it would be instructive also to see how are investment levels at different stages of garmenting in different countries. See table 5. Most of the Indian firm's investment is in sewing machines, and that special and processing machines form a very small part of the total number of machines, unlike other Asian countries. Countries such as Hong Kong and China have invested significantly in such special machines that add significant value to product and improve productivity levels for their firms as whole. That is not the case in India. And this fits in very well also with the fact of SSI reservation of garmenting in India⁵². Unlike other Asian countries where average size of garment firm and hence the average level of investment is higher, typical Indian garmenting unit is small, and hence incapable of investing big. The large-scale firms who enter into garmenting have to undertake 50% export obligation. So the firms in garmenting are small, and hence incapable of investing much. That affects productivity as well as competitiveness.

Lal [1999] found that the intensity of adoption of information technology (IT) did play a significant role in influencing the export performance of Indian garment firms. However, they are expensive, and necessitate extensive training of people. For small size firms, it is not an optimal solution, and Indian garment industry is a sector of 'infants'.

Management Practices and Organisational Skills

Manufacturing management is a key link between technology adoption and competitiveness of firms⁵³. Productivity gains are indeed achieved through better managerial practices on the existing technology. The study by Chandra [1999] developed a framework for evaluating manufacturing management, that included factors such as the work environment, capabilities and operational performance. Using this framework, the study compared the primary textile industry of China, Canada and India. Of all the parameters used in the framework, India appears to score over China only in the breadth of home market, quality of managerial workforce, and managerial practices. In all other components, India compares unfavourably with China. Perhaps here lies some explanation for higher competitiveness of China compared to India in the textile industry.

⁵¹ Sewing is most labour intensive contributing to 90% of total labour cost of garment

⁵² The GOI has recently dereserved the woven garmenting from SSI. Knit garments, however, still is reserved for SSI.

⁵³ Chandra [1998]

Productivity in Indian apparel sector is lower compared to other countries. For instance, compared to 20.6 ladies blouses that Hong Kong manufactures per machine per day, India manufactures only 10.2. Similar figures for trousers for Hong Kong and India are 19.3 and 6.8, or in gents shirts are 20.9 and 9.1. Mckinsey study noted, using no of shirts produced per day as a measure, that productivity in India is 16% of that in US, which is alarmingly low. According to the study, poor 'organisation of functions and tasks' (OFT) was the most important contributor to poor productivity in Indian apparel sector. Moreover, the preliminary interviews of some garment exporters revealed their almost complete ignorance of international issues, and even issues related to the WTO. But, there are brands and exporters- though mostly big ones- who are preparing for the quota-free trading regime through cost rationalisation attempts on the one hand, and increasing capability on the other. Most of them have moved upmarket, and trying to distance from being a low-quality, low-value Indian product.

Scale economies are indeed significant for marketing of products, though are not significant for manufacturing apparel (of the kind exported) in India, as it is a labour-intensive sector, catering to seasonal export demand which are small lot sizes supplies, and the extent of fabrication is very high in the sector. However, economies of scale become extremely important once India begins to export mass-produced clothing (like uniform/factory-wear). But such assembly-line processes involve huge investments, which are beyond the scope of SSI sector in garments in India. The large-scale companies do not venture into this since the 50% export obligation on a continuous basis that they have to undertake as a pre-condition is extremely risky. The disincentive to factory mode of production needs to be removed urgently for India to diversify its product and market portfolio. And that would be critical since high dependence on seasonal demand cotton garments, and that too being exported to countries that are developing their own backyards for becoming self-sufficient in the entire value chain, is not a wise strategy at all.

[B] Government Policy

There as many as 20 control orders/ notifications which are still in force despite the long years of liberalisation and deregulation of the Indian textile and clothing industry⁵⁴. Some of the government policies that have a bearing on global competitiveness of the Indian textile and clothing sectors are briefly outlined below.

1. Excise Policy: The excise duties applicable to the textile industry are the Basic Excise Duty (BED), Additional Excise Duty (AED) @ 15% applicable on cotton yarn and on all man-made/ blended yarn and fibre and AED in lieu of sales tax applicable on power processed fabric. However, the duty structure is biased since duty incidence falls disproportionately on different segments of the Indian textile and clothing sectors. Garments and made-ups that contribute 15% of value added share only 13%

⁵⁴ GOI Expert Committee on Textile Policy [1999]

of excise burden, whereas fibre/yarn segment that contributes 39% of value added contributes 55% of the duty. Grey fabric pays no duty at all⁵⁵.

The spate of broken links, exemptions available to various segments such as hand-processors, SSI units that compete with duty paying segment, and disproportionate excise duty incidence across the chain are major impediments to developing competitiveness in the industry. It has **distorted market structures, created unhealthy competition among the segments themselves**, and created a diverse variety of vested interests who are now opposing any reform in the sector.

However, government has been able to reform the excise duties in textile and garment sector in the current Union Budget 2002-03. Most of major lacunae have been removed.

2. Technology Upgradation Fund (TUF): Under the TUF scheme, manufacturing units are eligible for long and medium term loan from IDBI, SIDBI and IFCI, at interest rates that are 5% lower than the normal lending rates of banks. However, whether specific units are credit worthy for loans or not is to be independently evaluated by the lending institutions.

The utilisation of funds under this scheme has been disappointing. As of 29th February 2000, GOI received 304 applications and sanctioned 210 projects amounting to an outlay of \$385 million. Of this, only \$115 million was disbursed to 94 applicants. Sector-wise, the largest recipients of this loan were composite mills and spinning sector. However, the one positive observation is that processing sector-which is the least modernised in the entire value chain- is also among the largest recipients of the loans⁵⁶. The reasons for poor utilisation of funds under TUF has been that, in the very first place- in today's situation of excess capacity built up in the Indian textile- no one is willing to invest. In apparels the SSI reservation of garment units prevents them from making significant investments. And during times when the garment exports have not been doing well, large-scale units are not willing to expand capacity. There is a very high incidence of sickness and declining capacity utilisation in the textile industry. Very few firms are therefore willing to commit to the sector any more funds than they already have.

The reasons also lie in the unwillingness of the financial institutions to lend money to- what they call- 'sunset' industry. Besides, until sometime back, there was an attractive investment opportunity in the booming ICE (information, communication and entertainment) sectors. Over and above these are the reasons associated with hidden costs of loan processing (exceeding 1% of loan amount), prepayment penalty and higher lending rates of FIs compared to commercial banks. Some industry sources

⁵⁵ The sectors of the Indian economy that have a 80% share in the GDP contribute only 7% of the government's excise revenues. On the other hand industries that have share of 20% in the GDP contribute 93% of the government's excise revenues. Textile contributed 4% to GDP but shared 10% of excise in 1997-98. Clearly the tax structure is extremely skewed and is not income elastic. For, even when the sectors having an 80% share in the GDP grow rapidly, the impact of their growth on the government's excise revenues would be marginal. Lalbhai & Verma [1998]

⁵⁶ Industry sources mention that most of these disbursements have been in the processing units of composite mills, which in any case were relatively more modernised compared to IPHs.

also mention the huge amount of paperwork involved, and documents required getting a loan sanctioned.

3. Cotton technology Mission (CTM): India is the third largest producer of raw cotton in the world. But the yield of Indian cotton (approx. 300 kg/ha) is very low compared to world average (553 kg/ha), and dismal with respect to some countries like China (1064 kg/ha) and Turkey (1151 kg/ha). Moreover, ITMF57 surveys have repeatedly concluded that the Indian cottons are among the most contaminated in the world. This reflects the poor storage facilities and methods of handling cotton not only at the picking stage but also during ginning and pressing.

Not much information is available on the utilisation of funds under CTM. However, it is critical to remember that cotton yields and quality are to be improved not for its own sake, but for finally improving the global competitiveness of the end users of cotton, viz. fabric, made-ups and garment manufacturers. This supply chain management perspective is very critical for R&D in cotton. Cotton Inc. of the USA views cotton as a raw material with the end product (garment/ specialised application product) in sight. This end-to-end sight guides all R&D. In contrast, Indian R&D in cotton views cotton as a raw material, defining it by its technical properties, and attempting to improve those properties, irrespective of the utility of such enhanced technical features for the final end-product. Research institutions like ATIRA/BITRA/SITRA/ CIRCOT etc could take up R&D in cotton along such lines, and develop newer applications of cotton keeping the final end-use of the research product in mind⁵⁸.

4. Hank Yarn Obligation (HYO)⁵⁹: The HYO relates to the supply of yarn for the handloom sector, and is exempted from excise duty. As per HYO, 50% of all yarn spun from not less than 90% cotton/ viscose, packed for the home market for civil consumption, has to be packed in "hank" form. The HYO is aimed at guaranteeing an assured supply of cheap and coarse yarn to the handloom sector, so that it can, in turn, churn out "cheaper" fabrics. In reality, however, around 40% of hank yarn are being consumed by powerlooms at zero excise duty⁶⁰.

The HYO was tantamount to granting a subsidy to the handloom sector on the one hand, and taxing the yarn producers on the other. But the yarn producers business suffered because they were forced to produce a fixed proportion of their yarn of below 40s count, which fetched them a lower margin. More importantly, the obligation prevented the yarn producers from upgrading their product portfolio. This affected subsequent stages like fabric and garments too. The HYO thus, militated against the competitiveness of the textile and clothing sectors.

5. Quota Entitlement Policy: The issue relevant for competitive analysis in this policy is the fact of over-categorisation that has been practised through these policies, and the

⁵⁷ International Textile Manufacturers Federation

⁵⁸ Roy & Verma [1999]

⁵⁹ This has been abolished in 2002

⁶⁰ Report of Expert Committee on Textile Policy 1999, cited in CRISIL [2001]

‘export tax’ that the Indian textile and clothing exports have been subjected to owing to the quota policy of major importing markets.

Overcategorisation along with quota allotment system practiced in India has acted as a restriction intensifier⁶¹. Quotas under the aegis of MFA are broken down category-wise for each exporting country, and ceilings prescribed for each category. US has over 104 categories based on its tariff schedule. The Indian policy further adds to this maze by splitting the national quota allotment for any category into knitted, handloom, mill-made, or based on fibres⁶². It may so happen that while the sub-limit of mill-made sub-category may be reached, that of knitted and handlooms may remain unfulfilled. Quotas then acts as a constraint to the mill, even though annual levels are not 100% utilised. Moreover, by the very manner in which quota is distributed across the year can lead to a situation where aggregate quota goes unutilised whereas, *at the firm level*, it may have been exhausted sometime during that year itself. Change in market demand, and shift in consumer preferences cannot be predicted several months in advance, and hence when the export orders for a particular style of category begins to flow, quotas are not available in the domestic market. For instance, quota transfer rules in textile makes it obligatory on exporters to either surrender or hold additional quotas by end March every year. This is too early for exporters to predict the export orders for the entire year, and hence the exporters have to decide on hold/surrender strategy on the basis of forecast by as early as March of every year. The upshot of it all is that underutilised aggregate annual quotas may also restrict trade, and therefore, those quotas can be binding even if not 100% utilised.

If quotas are binding, then they command a premium. In order for a firm to be able to export therefore, it must buy the quota from the market at the prevailing premium. This imposes a cost to the firm analogous to **export tax**⁶³. This export tax is passed on to the final consumer in the importing country⁶⁴. For exporting countries, Export Tax Equivalent (ETE)⁶⁵ measures have been employed to find the degree of protection being enjoyed by importing countries⁶⁶. A higher ETE, would imply a higher level of protection, *ceteris paribus*.

⁶¹ Khanna [1991]

⁶² The chances of quota under utilisation are higher the greater the number of quota sub-categories and other rules and regulations.

⁶³ At least some of the quota rents can be attributed to the way the quotas are administered in the exporting country. Kathuria & Bhardwaj [1998]

⁶⁴ Hamilton [1984] calculated the import tariff equivalents of quota for Sweden and found that if Sweden removed quota restrictions on imports of apparels from LDCs, retail prices of imported apparel would fall by a maximum of 13%.

⁶⁵ ETE has been defined as ratio of quota price to uvr less quota price, and is a measure of excess demand in the form of price.

⁶⁶ While quota rents are a gain for exporting countries, these gains must be weighed against the reduction in the price of exports to unrestricted markets arising from decline in demand in the restricted markets. Moreover, since the MFA diverted output from low cost to high cost producers, the average cost of world textiles output must increase, leading to decline in world demand. See Kathuria & Bhardwaj [1998]

Kathuria & Bhardwaj [1998] estimated the ETEs for Indian textile and clothing sectors, product-wise and fibre-wise. For the years 1993 – 1996, while in case both of US and EU, the weighted ETEs have declined over the period, it remains much higher in USA at 28-37% than in EU at 14%. Moreover, this ETE in US is actually higher than the actual tariffs levied by the US on imports of textile and clothing products. Again, predictably, ETEs on Indian cotton exports was 39% in 1996, while that for synthetics was lower at 16%. Interestingly- and predictably again- the products with highest ETEs were also the products which had highest weight in total exports to USA. In 1995, for e.g., categories 338/339 (knit shirts and blouses) and 340 (gents woven shirts) had ETEs of 99% and 53% respectively, and they shared 31% and 27% of cotton apparel exports to USA. This behaviour is less pronounced in EU, simply because EU imports a lot more items that are outside quotas (either non-restrained within MFA, or outside MFA altogether). For instance, 29% of garment exports to EU were outside quotas in 1996, against only 8% in the case of USA.

This has important implications for price-competitiveness of Indian textile and clothing exports. Post-2004, ETEs would vanish, and the implicit export tax on Indian firms would also disappear. However, to what extent this would affect the cost-competitiveness of Indian textile and clothing sector firms would depend on what are the relative levels of ETEs in other restricted countries. From the secondary sources, it appears that the quota administration system in Asian countries is much better (less restrictive) than that in India. If that is true, assuming that ETE levels for all categories among Indian competitors are same in 2004, India is likely to gain some relative cost-competitiveness owing to the relatively extra inefficiency (of domestic quota administration system) that would be wiped out from 2005. However, the precise extent of this relative cost-advantage is an empirical matter, and would need further research.

6. Perhaps the most draconian of all government policies that has scuttled the growth of the garment industry is **reservation of garment manufacture for small-scale industry**. It has not only prevented expansion, but also impeded technological upgradation of the garment manufacturing units. As a result, the garment units could neither attain optimal economies of scale, nor produce international quality garments.

A recent McKinsey [2001] study, using men's shirts produced per hour, estimated the labour productivity in Indian apparel industry to be 16% of US levels. Exporters have a better productivity at 35% of US levels. The study attributes the poor productivity to format mix⁶⁷, poor 'organisation of functions and task' (OFT), lack of viable investments specially in technology and low scale. Average tailoring shops in India have 3-4 sewing machines in the back room, while domestic manufacturers have an average of 20 machines and exporters have around 50 machines. In contrast, China and Sri Lanka often have thousands of workers working under one roof. 500 machine

⁶⁷ It relates to shift away from tailors and towards manufacturers. In developed countries, tailors produce high-end, made-to-order garments, and constitute very small share of demand. In India, tailors produce for the mass-market, low end products. The reason for their survival in India, according to the study, is price advantage. The manufactured garments are sold through retailers who add up their margins. Thus, despite the production cost of garments being lower compared to that of tailor, the absence of mark-ups at distribution channels makes the tailors price-competitive.

factory is the minimum size required to function effectively. The decentralised nature of the sector is a remarkable entrepreneurial response to the kind of government policies that prevailed in the sector. But that is grossly unsuited to global competitiveness.

Strict **labour laws** in India make it virtually impossible for companies to shed labour. It also introduces unfair discrimination against large companies who are forced to comply with the labour laws relating to minimum wages, social security, contractual obligations, nature of terminations, internal transfers/ job rotation, right to leaves and regulations regarding working hours etc., while the smaller ones (like powerlooms) manage to evade compliance with such regulations. This introduces a de facto competitive edge to powerlooms compared to organised mills, and has led to decline of mills and proliferation of powerlooms in India, with all its attendant adverse implications for competitiveness of the textile and clothing sector chain. Labour laws in India have raised much dust, have been the bone of contention, and politically a 'sacred cow'⁶⁸. There are three specific provision related to labour which have attracted a lot of attention, viz., Industrial Disputes Act 1948 (provisions governing retrenchment, layoffs and closure), Contract Labour (Regulation and Abolition) Act 1970 (Section 10 empowers the government to prohibit contract labour in certain situations at government's discretion) and Trade Unions Act 1926 (Any seven persons can get together and form and register a union).

[C] Economy-Wide Costs

Infrastructure

According to the World Competitiveness Report 1997, India was ranked 45th among 46 countries in terms of competitiveness in infrastructure. In 2002, India's rank was 42 out of 49 countries.

1. Transportation is one area where India compared very unfavourably with its competitors. For instance, **shipping** a container of textile or garments from India to the USA is costlier in India than in its Asian competitors. Despite a longer route, shipping to the US eastern seaboard out of Bangkok is almost 18% cheaper compared to Mumbai or Chennai. If this is weighted for trade volumes, the overall cost advantage in shipping from Bangkok to the US is almost 23%. China enjoys a 13% cost advantage in shipping garments from Shanghai to the US East Coast, and a staggering overall advantage of 37%. The huge disadvantage of India is due to delays and inefficiencies in Indian ports compared to other Asian countries.
2. India has had the unenviable reputation of suffering from high industrial **energy costs**. Our interviews also showed that high energy cost is among the biggest deterrents in attaining competitiveness. Much of this is due to cross-subsidisation in different states,

⁶⁸ An elaborate discussion of labour laws in the ICRIER Study Report is based on the Report of Task Force on Employment Opportunities, headed by Montek Singh Ahluwalia submitted to the Planning Commission in June 2001.

as well as huge transmission and distribution (T&D)⁶⁹ losses. All these problems show up in reduced productivity and competitiveness.

3. None of India's international competitors have as high an **interest cost** as in India⁷⁰. Interest cost as a percentage of sales in Indian manufacturing companies was close to 5.5% compared to less than 4% in countries such as Indonesia, S Korea, Malaysia, Philippines and Thailand.

The situation with regard to textiles is very severe. While interest as percentage of sales was 8.58%, interest as a share of value added was a high 12.9% for textiles. Garments is one sector which seems not be as adversely affected on this account. Its respective ratios were 2.05% and 3.3%. One important reason for this, according to some entrepreneurs, is the fact of predominant decentralised nature of garment sector in India.

4. During the interviews, some other infrastructure bottlenecks that were mentioned included the poor quality of inland roads, specially state highways, large number of octroi posts, local regulations regarding road use during specific hours only and absence of expressways which could reduce the inland transportation time given the sub-continental size of the country.
5. **Transaction costs** in India deserve a special mention since the policies and procedures involved at each stage of exporting and importing are so cumbersome that they induce tremendous delays. For e.g. in getting a duty free advance license for export production, the average time taken by 35 exporters was 7 months. Another two months were needed for redeeming the legal undertaking, making it a total of 9 months. However, at a cost of Rs 10,000, the exporter could get his/her license in 2.5 months, and for another Rs 8,000, could get the legal undertaking redeemed in 15 days. Analytically, this tantamount to an export tax, and hence any reduction in these would directly enhance price-competitiveness.

[D] Non-Price Factors

In the context of emerging global marketplace, prices are now falling in priority of list of criterion considered important by major retailers in the export market⁷¹. An Industry study by Canadian Department of Industry⁷² rates several factors considered important by retail buyers/ private labels for choosing source countries. Delivery and reliability, and quality scored higher with 9.2 and 9.0 grades (on a 10 point scale) compared to price which was ranked third with a score of 8.8. Other factors in descending order of importance were size standards, fashion and styling, fabric and fabrication, developed manufacturing base,

⁶⁹ Several entrepreneurs mentioned that T&D losses were an euphemism for energy theft!

⁷⁰ CII-World Bank [2002]

⁷¹ There began a shift in emphasis from production to marketing in the Indian garment industry during the 1980s. Non-price factors such as design, quality and variety have become increasingly important. Chatterjee & Mohan [1993]

⁷² Shanbhag [2000]

and exclusivity. While price would remain important, it would not be the sufficient factor in getting export orders.

A study on buyers' perception of India as a source country showed that while India was perceived satisfactorily on price, quality, technology, flexibility, small order quantity etc. it was perceived unfavourably on lead times, responsiveness, communication, trust, meeting contractual obligations, ethical standards etc.

V. Policy Recommendations

India is a land of great potential since it is perhaps the only country in the world that is self-sufficient and complete in the cotton value chain. This strong advantage, however, has been frittered away due to fragmented and myopic vision of the government that resulted in policies that ran counter to market signals. The current industry structure is in a significant sense- a tribute to the Indian textile and clothing sectors who have managed to perform despite the throttling policy constraints.

In view of the global developments in retail sector, driven by emancipated consumer, and keeping in mind that the protection that quota afforded to Indian textile market would soon disappear, it is imperative for the Indian textile and clothing sectors to reform, and do that quickly. As is evident by now, most of the impediments to India's export competitiveness lies at home⁷³. Market access conditions arise only after India develops the competence to survive in the market.

Also, it is clear that most of the problems are structural in nature, and emerge from a lack of holistic view about the entire value chain- from fibre to retail, which in itself is engendered by the fragmented government policies. Needless to write, most of the reform in this industry pertains to changes in government policies. However, before delineating the policy changes required to make the Indian textile and clothing sectors globally competitive, it would be useful to mention a few of the guiding principles⁷⁴ which lay the foundation of recommendations.

1. While the role of the government in creating and sustaining national advantage is significant, it is inevitably partial because in the absence of underlying national circumstances that support competitive advantage in a particular industry, the best policy intentions would fail. India is endowed with these 'underlying national circumstances' in textile and clothing sectors in full measure.
2. Governments do not control national competitive advantage, they only influence it. The central role of the government policy therefore, is to deploy a nation's resources

⁷³ World import of clothing and textiles have grown at over 6% p.a. annual average all along the 1990s. Even during the MFA era, the decline in India's global market share was due to reasons at home, and not due to demand factors. Misra [1993]

⁷⁴ Porter [1998]

(labour and capital) with high and rising levels of productivity, since productivity is the root cause of a nation's standard of living.

3. Governments cannot create competitive industries. Firms must do so. Governments shape or influence the context and institutional structure surrounding firms, as well as the inputs that firms draw from.

Based on these premises, following policy recommendations are made:

[A] Textile Specific

Home demand creation

1. Allow Foreign Direct Investment (FDI) in garment retailing to enable large, modern retail showrooms to set up shops in India. Owing to comparative advantages in clothing manufacture that would be available indigenously, the government need not worry if these large retailers would begin to outsource their clothing requirements.

Presence of large retailers would create domestic demand for ready-to-wear garments, and also push for higher productivity in garment manufacturing through bulk orders. This would also help promote large-scale manufacturing facilities for garmenting, and help Indian exports diversify into standardised, mass-clothing items.

2. Reduce the import duty on textile and apparel to infuse competition in the domestic market, which would, inter alia, drive up demand for higher and better clothing. The Indian import tariffs in this industry are among the highest in the world, ranging between 25-40%⁷⁵. And with quota to be abolished in 2004, the global attention would distinctly turn towards tariffs in this industry. There already is tremendous pressure on India to improve market access by reducing the high import tariff rates. India can use this as an opportunity to minimise the threat from proliferating regional trading arrangements. GOI can use 'reduction in import tariffs' as a bargaining tool to get MFN tariff rates (specially peak rates) in US and EU negotiated downwards as a reciprocal measure. That would significantly reduce the adverse tariff impact of PTAs on India vis-à-vis the PTA countries of US/EU.

Promote fair competition

3. Rationalise excise duty structure across the entire value chain from fibre to garment retailing⁷⁶. Levying of moderate, uniform VAT should be the long-term objective.
 - Do away with exemptions on ginned cotton, hank yarn⁷⁷, grey fabric, hand processors (and a few specified processes), knitwear and hosiery and SSI units in garments⁷⁸.

⁷⁵ The GOI has announced though that customs tariffs would be rationalised to just two rates, viz., 10% and 20%, in a few years.

⁷⁶ This recommendation has just been made by the GOI Expert Group on Textile Policy set up under the chairmanship of N. K. Singh (November 2002).

- Rationalise excise duty incidence at spinning stage. Spinning bears almost 55% of total excise revenue collections from this industry, but contributes only 39% to value addition⁷⁹.
- Abolish Additional Excise Duty (Textile and Textile Articles)- AED (T&TA) on mmf/yarn and cotton yarn

These would go a long way in realignment of the industry structure at all stages, since the structure of the textile sector particularly has been the result of distortionary and discriminatory excise policy, replete with exemptions. New industry structure based on market forces would be more attractive for productive investments, thereby raising the technological standards and quality levels of the entire industry.

4. Remove policy-bias against synthetic fibre/yarn.

- Rationalise excise duties on synthetic fibre to bring it in line with cotton fibre
- Lower customs duty on raw materials used in manufacture of synthetic fibre/yarn

This would enable the development of a vibrant synthetic fibre base in India, which is critical to correct the predominance of cotton in Indian exports and consumption. Global consumption of synthetic is growing faster than that of cotton, and share of cotton is expected to decline to less than that of synthetic fibre. India has virtually no presence in this area.

This is also essential to grow into the vast area of technical textiles that is emerging as a special-use textile in the world. India is just not present in the huge and growing area of non-apparel textile applications. Most of standardised items of clothing too require some form of blend. Moreover, that would enable Indian exports to diversify into non-quota markets where the demand for synthetic apparel is much higher compared to quota-markets. And finally, that would take off some pressure on cotton to clothe the domestic market (due to which cotton prices have been subsidised in India). Cotton then, can concentrate on higher value addition.

5. Abolish Hank Yarn Obligation⁸⁰

It is the powerlooms that have been benefiting mostly through this regulation, and gain unfair competitive edge over organised mills. This has been a yet another contributory factor to organised mills' sickness. And decline in share of organised mills due to unfair competition from powerloom has been detrimental to competitiveness of the supply chain.

Assistance to handlooms, until such time as it might be required, can be provided through existing market assistance schemes.

⁷⁷ In view of the special characteristics of the handloom sector, it might need some government assistance for some time. However, a better way of assisting the handlooms would be to refund the excise duty collected through existing handloom rebate schemes.

⁷⁸ SSI units are exempt upto a clearance of Rs 10 million.

⁷⁹ CRISIL [December 2001]

⁸⁰ It has been abolished in the Union Budget 2002-2003

6. Remove manufacturing of knit garment and fabric from SSI reservation list.

One of the chief reasons for the current fragmented, decentralised garment sector in India is that it is reserved for SSI⁸¹. De-reservation would attract large-scale firms into manufacturing of mass-items of clothing, which reap scale economies. Large-scale firms would not in any case enter the product lines, where order size is small, and considerable manufacturing flexibility is required. So SSIs would not be wiped out. Dereservation would allow India to enter into markets segments, which are among the fastest growing and are factory-based. Besides, ceiling on scale has prevented modernisation and investment in the sector. That would also eliminate the peculiar dichotomy whereby the Indian garment units were protected from Indian large-scale manufacturers, but had to compete with foreign large-scale units in the domestic turf following removal of quantitative restrictions on imports. De-reservation would allow processing of bulk orders from large retailers overseas as well as at home (after FDI in retailing is allowed). This would make the sector attractive for quality investment through technological upgradation. Very importantly, this would also enable the sector to invest in products not on the basis of SSI constraints, but on the basis of composition of demand. Finally, since building non-price competitive competencies are crucial for export growth, the sector would begin to invest in brands, designs, IT-driven superior customer services, unique style and patterns etc.

7. Promptly close down sick units in NTC mills those are not capable of being revived, sell their surplus land and use that to pay the employees through a generous VRS package. That would release land in prime centres of cities, prompt more realistic land prices (which may positively affect retail sector), and also cut down the annual losses being incurred due to non-viable operations.

In those NTC mills that can be revived, close the weaving units, and modernise and upgrade the viable spinning and processing units. The space created by the closure of weaving units can profitably be used for garment-making. The upgraded processing units, together with garment conversion units could then cater to the domestic market. The labour displaced as a result of closing down of weaving units should be redeployed in a more labour-intensive garment conversion units. Such a step would actually be employment generating! That would also release some surplus capacity in the weaving sector.

Regulations and Controls

8. There exists a plethora of regulations like Cotton Control Order, Essential Commodities Act, which need to be critically reviewed in view of their limited usefulness⁸². They are products of an era of shortages, and a drag in the era of surpluses that characterises the Indian textile and clothing sectors currently.

⁸¹ Recently, woven garment manufacturing was de-reserved. Knitwear and knit fabric continue to remain reserved for SSI

⁸² For the complete list of such regulations, see GOI Expert Committee on Textile Policy [1999]

[B] Textile Non-Specific

Infrastructure

9. This relates to the building of world class infrastructure- port, inland transportation, power, and communication etc- facilities within the country. Owing to resource constraints, and gestation lag, it may not be possible to develop such structure for the entire country at once. As a first step, such infrastructure must be made available to units in Special Economic Zones, and extended to rest of the country. Specific recommendation on each of these economy-wide factors is beyond the scope of this study. Nevertheless, this must not belittle the very high degree of adverse impact that the poor quality of Indian infrastructure has had on Indian exports of textile and clothing. For instance, China enjoys an overall 37% advantage (of which 13% is cost advantage) over India in shipping garments due to delays and inefficiencies at the Indian ports. 25% of production cycle time in Indian exports of apparel is owing to delays at customs. Quick response and just-in-time delivery is virtually impossible.

Modify Labour related Provisions

10. Modify the labour related provisions in Industrial Disputes Act 1948 (Ch V-B), Contract Labour (Regulation and Abolition) Act 1970 (Section 10) and Trade Union Act 1926, to bring them in line with current realities and market requirements.

That fabricators are today the ‘backbone’ of the garment industry is chiefly due to the outdated labour laws in India. That has created fragmentation specially in the garment industry (since it is more labour intensive). Outmoded laws related to retrenchment, transfers, dismissals and job rotations have adversely affected organised mills too. This has given rise to an industry structure that is completely incapable of becoming globally competitive. It has prevented modernisation, scale economies in bulk purchases, production and marketing, and product-diversification into assembly-line produced items⁸³.

Clusters for Competitiveness- Supply Chain Perspective

11. For higher value added exports, conglomeration approach is one technique for acquiring sustainable and global competitiveness⁸⁴. Right from availability of primary raw material, to spinning, weaving, processing and garment-converting units, along with the testing labs, etc. should be developed in a compact geographical area, for which a demarcation of some form and substance is already existing⁸⁵. Govt. policies

⁸³ There is a strong concern for unemployment that this may cause. However, according to Ahluwalia Committee Report [2001], “the proposed reforms will have the effect of expanding employment in the organised sector, thus extending the many benefits that at present accrue only to labour in the organised sector to a much larger proportion of working population”. The report mentions the “need for a parallel social safety net in the form of unemployment compensation or insurance”.

⁸⁴ The government has recently approved ‘apparel parks’ in Surat, but that falls short of the concept that is proposed here, since they do not envisage deep backward and forward linkages, upto and including yarn at one end and marketing at another.

⁸⁵ Like in Special Economic Zones, where the investment climate is world class

must be industry-friendly, and infrastructure in such areas should be world class. In developing such conglomerations, locational factors, particularly pertaining to raw material availability, should also be considered. These conglomerations should be promoted to evolve as “Centres of Excellence”⁸⁶, very similar to Hollywood for entertainment and Silicon Valley for software. Tiruppur today is very akin to a conglomeration in knitting/hosiery sector. These ‘clusters’ could also be very focused on product(s) that India has revealed a competitive advantage in. This develops the supply chain approach and optimises the synergy between textile and clothing sectors. Such restructuring of the industry could be facilitated greatly through the nodal finance agencies (IDBI and SIDBI) under the TUFS. Project appraisal techniques by bankers should participate in the responsibility of creating globally competitive textile and clothing industry in India.

Collaborating to Compete- Policies on Investing Abroad

12. Strategic alliances have become crucial in the textile and clothing sectors in view of the growing number and scope of PTAs. Government needs to design its policies for Indian companies investing abroad in consonance with this reality. Access to markets like EU and US might increasingly be mostly via those developing countries that have a PTA with world’s big markets.

Indian textile and clothing industry has a great potential, which has not been cultivated for global performance. The above set of recommendations would provide the right kind of institutional context and investment climate for the Indian firms engaged in these sectors to rise to the occasion. As for making the Indian textile and clothing industry globally competitive, the government can trust the ingenuity of the Indian entrepreneurs.

⁸⁶ It must be noted however, that it is not being proposed to have a separate quality standard for export and for domestic market. The idea of these clusters is to promote higher quality standards for the industry as a whole, irrespective of whether the supplies are for home market or for export market. In this sense, the approach should be integrated, and not dichotomous, as is implied in the recent government initiatives such as SEZs.

References

1. Agrawal, P., Subir V. Gokarn, Veena Mishra, Kirit S. Parikh and Kunal Sen (2000), *Policy Regimes and Industrial Competitiveness, A comparative Study of East Asia and India*, Macmillan Press Ltd., Great Britain.
2. Ahluwalia, M.S. (2001), *Report of Task Force on Employment Opportunities*, Planning Commission, GOI, June.
3. Andriamananjara, S. (1999), *On the Size and Number of regional Integration Arrangements: A political Economy model*, World Bank Working paper Series 2117
4. Anson, Robin (1999), *Strategies for Global Competitiveness*, Textile Intelligence. Paper presented at Texcon '99, Chandigarh, India, December.
5. Balassa, B. (1965), "Trade Liberalisation and Revealed Comparative Advantage", in *The Manchester School of Economic and Social Studies*, Vol. 32
6. Banik, N. and Saurabh Bandopadhyay (2000), *Cotton Textile Industry in India, in the Wake of MFA Phase-out*, Working Paper no. 9, Rajiv Gandhi Institute for Contemporary Studies, New Delhi.
7. Baughman, Laura M. & Kara M. Olson (1997), *Prospects for Exporting textiles and Clothing to the United States Over the Next Decade*, International Textiles and Clothing Bureau, Geneve, March.
8. Bhatia, S. (1997) *Indian Garments Industry in the Post MFA Peiord*, Occasional Paper No. 7, Indian Institute of Foreign Trade, New Delhi.
9. Bhattacharyya, B. (1999), *Non-Tariff Measures on India's Exports, An Assessment*, Occasional Paper No. 16, Indian Institute of Foreign Trade, New Delhi.
10. Bhavani, T.A. Suresh D. Tendulkar (2001), "Determinants of firm-level export performance: A case study of Indian textile garments and apparel industry", *Journal of International Trade and Economic Development*, 10:1, 65-92.
11. Bhide, S., Sheela Thakar, (1996), *India's textile and clothing exports to USA and EEC*.
12. Castro, J. A. de, *Trade & Labour Standards, Using the Wrong Instruments for the Right Cause*, UNCTAD Working Paper.
13. Chadha, Rajesh (1998), *India's Export Performance: A Comparison with East Asian Countries*, in Agarwal, Manmohan, Alokesh barua, Sandwip Kumar Das and Manoj Pant, "Indian Economy in Transition, Environmental and Development Issues", Har-Anand Publications, New Delhi.
14. Chandra, P. (1999), *Competing Through Capabilities, Economic and Political Weekly*, 27 February
15. Chandra, P. ed. (1998), *Technology, Practices and Competitiveness: The Primary Textile Industry in Canada, China and India*, Himalaya Publishing House, Mumbai.

16. Chaudhuri, S. (1992), *The Indian Textile Industry, Prospects for Exports and Enhanced Global Presence*, Report prepared for Investment Information and Credit Rating Agency of India Ltd., New Delhi, October.
17. Confederation of Indian Industry (1996), *Proceedings of National Seminar on Developing Competitive Advantage in India*,.
18. Confederation of Indian Industry (1998), *India's Textile industry—Building Competitiveness to Survive and Thrive*, May.
19. Confederation of Indian Industry (1999), *India's Textile industry—Challenges for the Millennium Ahead—Building Competitiveness to Survive and Thrive*, April.
20. CRISIL Advisory Services (2001), *Study on Excise Duty Structures in the Textile Sector*, December.
21. Debroy, Bibek (1996), *Beyond the Uruguay Round, The Indian Perspective on GATT*, Response Books, New Delhi.
22. Din, M. and Kalbe Abbas (2000), *The Uruguay Round Agreement and Pakistan's Trade in Textiles and Clothing*, South Asia Economic Journal, Vol. 1, No. 1.
23. ERAD, WTO (2001), *Market Access: Unfinished Business, Post-Uruguay Round Inventory and Issues*, April.
24. Erzan, R. G. G. and Paula Holmes (1989), *Effect of MFA on Developing Countries Trade*, Seminar Paper No. 449, Institute for International Economic Studies, Stockholm, September.
25. ESCAP Secretariat (1996), *Agreement on Textiles and Clothing: Progress, Problems and Prospects for Developing Countries of the ESCAP Region*, in “Asian and Pacific Developing Economies and the First WTO Ministerial Conference, Issues of Concern”, United Nations, New York. pp. 93.
26. EXIM Bank (1995), *Indian Garment Exports; Implications of the MFA Phase-out*, Occasional Paper No 34.
27. Fernandes, M., Chandrika Gadi, Amit Khanna, Palash Mitra and Subbu Narayanswamy (2000), “India's Retailing Comes of Age”, *The McKinsey Quarterly* 2000 Number 4.
28. Finger, J. Michael, Julio J., Nogues (2002), *The Unbalanced Uruguay Round Outcome: The New Areas in Future WTO Negotiations*, World Bank, December.
29. Ganesh-Kumar, A., Kunal Sen & rajendra R. Vaidya (1999-2000), “India's Export Competitiveness and Finance”, *India Development Report 1999-2000*, IGIDR, India
30. Gherzi (2000), *A Textile Perspective*, ITMF conference papers, Capetown, September.
31. Gokhle, C., Vijaya Katti (1995), *Globalising Indian Textiles- Threats and Opportunities*, Tecoya Publication.
32. Goswami et al, (2002), *Competitiveness of Indian Manufacturing, Results from a Firm-Level Survey*, CII-World Bank publication, January.

33. Grether, J., Marcelo Olarreaga (1998), *Preferential and non-preferential trade flows in World Trade*, Staff Working Paper ERAD-98-10, WTO.
34. Hamilton, C. B. ed., (1990), *The Uruguay Round Textiles Trade and the Developing Countries, Eliminating the Multi-Fibre Arrangements in the 1990s*, The World Bank.
35. Henderson, Terilyn A. & Elizabeth A. Mihas (2000), “Building Retail Brands”, *McKinsey Quarterly* 2000, Number 3
36. Herin, J. (1986), *Rules of Origin and Differences between Tariff Levels in EFTA and the EC*, EFTA occasion paper no. 13, Geneva.
37. Hoda, A. (2001)- “Preparing for Doha: does the world need a new round?”, *Financial Times*, 12 June
38. Hoekman, B., N. G. Francis and Marcelo Olarreaga (2001), *Tariff Peaks in the Quad and Least Developed Country Exports*, World Bank, February.
39. Hummels, D., Ishii Jun and Yi Kei-Mu (2001), *The Nature and Growth of Vertical Specialisation in the World trade*, *Journal of International Economics*, 54 (2001) 75-96
40. ITC, UNCTAD (1994) *Textile and Clothing: An introduction to quality requirements in selected markets*, Geneva.
41. International Textiles and Clothing Bureau (ITCB), Geneva. Several documents and publications.
42. Kar, P. P. (2000), “Apparel technology and Systems in India”, in Shanbhag, V., A. K. G. Nair, *Winning Ways for the Future Apparel Business*, Global Business Press, Delhi
43. Kathuria, S. (1999), *Competition sans competitiveness-*, 6 November
44. Kathuria, S., Anjali Bharadwaj (1998), *Export Quotas and Policy Constraints in the Indian Textile and Garment Industries*, SASPR, World Bank, October.
45. Kathuria, S., Will Martin and Anjali Bharadwaj (2001), *Export Quotas and Policy Constraints in the Indian Textile and Garment Industries*, World Bank
46. Katti, V., Subir Sen (2000), *MFA Phasing out and Indian Textiles Industry, Select Issues for Negotiation*, *Foreign Trade Review*, IIFT, Oct-Dec.
47. Kay, J. (1996), “Business of Economic” Oxford University Press, New York.
48. Keesing, D. R., M. Wolf (1981), ‘Question on International Trade in textiles and Clothing’, *World Economy* : 79-101, March.
49. Kell, G., Jurgen Richtering (1991), *Technology and Competitiveness in the Textile Industry*, Working Paper Nr. 42, UNCTAD, October.
50. Khanna, S. R. (1991), *International Trade in Textiles*, Sage Publications, New Delhi.
51. Kim, H. Ji Sung Hong and Sang Chul Yoon (1995), *Investment Demand of the ASEAN Textile Industry*, Korea Institute for Industrial Economics and Trade.

52. Krugman, Paul (1995), "Growing World Trade: Causes and Consequences", *Brookings Papers on Economic Activity*, 1:1995, pp. 327
53. Kumar, Rajeev & Sri Ram Khanna (1990), "India, The Multi-Fibre Arrangement and the Uruguay Round" in Hamilton, Carl B. ed. *The Uruguay Round, Textiles Trade and the Developing Countries, Eliminating the Multi-Fibre Arrangement in the 1990s*, World Bank.
54. — Trela, Irene & John Whalley, "Unraveling the Threads of the MFA"
55. — Martin, Will & Suphat Suphachalasai, "Effects of the Multi-Fibre Arrangements on Developing Country Exporters: A Simple Theoretical Framework".
56. Kurt Salmon Associates (1999). *Vertically Integrated Textile & Apparel Mission for India(VITAMIN)*, KSA Technopak, May.
57. Lal, K. (2000), *Adoption of Information Technology and its Consequences in a Developing Context- A study of the Indian Electrical & Electronic Goods and Garments Sector in Two Industrial Clusters*, Ph. D. Thesis, Erasmus University Rotterdam, June.
58. Laursen, Keld (1998), *Revealed Comparative Advantage and the Alternatives as Measures of International Specialisation*, DRUID Working paper No. 98-30. December
59. Marion, J. (2000), *International Trade and the Position of European Low-Skilled Labour*, Staff Working Paper ERAD, WTO, November.
60. McKinsey & Company (2001), *India: The Growth Imperative*, Vol. I., August.
61. Mehta, R. (1995), 'Textile and Apparel Trade: Impact of New Regionalism', paper presented at RIS/ESCAP/ENDP National Seminar on *Promotion of Intraregional Trade in the Asia-Pacific region*, New Delhi, May.
62. Mehta, R. (2001), *WTO, Liberalisation and Industrial Sector, The Case for Market Access*, RIS Occasional Paper No. 63.
63. Mishra, V., *India's Export Performance 1950-1997*, (unpublished Final Draft), IGIDR.
64. Misra, S. (1993), *India's Textile Sector- A Policy Analysis*, Sage Publications, New Delhi.
65. Mohan, Rakesh (2002), "Small-Scale Industry Policy in India: A Critical Evaluation", in Krueger, Anne O. ed., *Economic Policy Reforms and the Indian Economy*, The University of Chicago Press, Chicago.
66. Mohan, R. & S Chatterjee (1993), *India's Garment Exports*, Economic and Political Weekly, Vol. XXVIII, issue 35.
67. Mukherji, I.N. (2000), *Indo-Sri Lankan Trade and Investment Linkages: With Special reference to SAPTA and Free Trade Agreement*, South Asia Economic Journal, Vol. 1, No. 1.
68. Neogi, C., Ghosh, Buddhadeb (1998), *Impact of Liberalisation on Performance of Indian Industries, A Firm Level study*, *Economic and Political Weekly*, 28 February

69. Panagariya, A. (1999), *Labour Standards in the WTO and Developing Countries: Trading Rights at Risk*. Note served as the basis of author's remarks at the Congressional Staff Forum on International Development, "Critical Issues for the Seattle WTO Ministerial: Trade and labour Standards", November.
70. Panagariya, A., Shekhar Shah and Deepak Mishra (2001), *Demand elasticities in international trade: are they really low?*, *Journal of Development Economics*, Vol. 64 (2001) 313-342.
71. Patibandla, M. (1995), *Firm Size and Export Behaviour: An Indian Case Study*, "The Journal of Development Studies", Vol. 31, No. 6, pp 868-882, August.
72. Porter, M. E. (1980), *Competitive Strategy: Techniques for Analysing Industries and Competitors*, The Free Press, New York.
73. Porter, M.E. (1998), *The Competitive Advantage of Nations*, The Free Press, New York.
74. Porter, M.E. (1999), "Innovative Capacity and Prosperity: The Next Competitive Challenge", *Global Competitiveness Report 1999*, World Economic Forum, Geneva.
75. Porter, M., Jeffrey D. Sachs & John W. McArthur (2001), "Executive Summary: Competitiveness and Stages of Economic Development", *Global Competitiveness Report 2001*, World Economic Forum, Geneva
76. Prahalad, C. K., G. Hamel (1990), 'The Core Competence of the Corporation', *Harvard Business Review*, 168(3): 79-91.
77. Prasad, A.C.H. (1997), *India's Competitiveness in Export of Garments in the MFA Phase-out and Post-MFA Phase-out Periods*, Occasional Paper No. 10, Indian Institute of Foreign Trade, New Delhi.
78. Raffaelli M. (1998), "Bringing Textiles and Clothing into the Multilateral Trading System", in Bhagwati, Jagdish & Mathias Hirsch ed., *The Uruguay Round and Beyond, Essays in Honour of Arthur Dunkel*, Springer, Germany
79. Raffaelli, M. & Tripti Jenkins (1995), *The Drafting History of The Agreement on Textiles and Clothing*, International Textile and Clothing Bureau, Geneva, November.
80. Ramachandran, V. (2001), *Export Competitiveness and the Market for Textiles: key issues, evidence from firm interviews, and policy suggestions*, Centre for International Development, Harvard University, July.
81. Ramachandran, V. (2001), *Export Competitiveness and the Market for Textiles: A Summary of Research*, Harvard Studies – 7, Harvard University, January.
82. Ramaswamy, K. V. (1999-2000), "Exporting in a Globalised Economy", *India Development Report 1999-2000*, IGIDR, India
83. Ramaswamy, K. V. & Gereffi, Gary (1998), *India's Apparel Sector in the Global Economy, Catching Up or Falling Behind*, *Economic and Political Weekly*, 17 January.

84. Rao, V. L. and R. L. Das (1993), *Textiles and clothing sector in the Asian Region*, Paper presented in the RIS/ESCAP/UNDP National Seminar on "Promotion of Intra-regional Trade in Asia-Pacific Region", New Delhi, May.
85. Reid, David McHardy (1997), *The Changing Requirements for Competitiveness in Japan*, Asia Pacific Journal of Business & Economics, Vol. 1 No. 2, December
86. *Report of the Expert Committee on Textile Policy* (1999), Ministry of Textiles, Government of India, August.
87. Robin A. (1999), *Strategies for Global Competitiveness*, Paper presented at Texcon, Chandigarh, India.
88. Roy, P. R., Samar Verma (1999), *New Opportunities And Challenges Emerging On The Textile Scenario*, TAI Annual Conference Volume, December.
89. Roy, T. (1998), *Economic reforms and Indian textile industry*, *Economic and Political Weekly*, 8 August
90. Schmalensee, R., Willig Robert ed. (2000), *Handbook of Industrial Organisation, Vol. I & II*, Elsevier Science B. V.
91. Shanbhag, V., A. K. G. Nair (2000), *Winning Ways for the Future Apparel Business*, Global Business Press, Delhi
92. Singh, Y. (2000), *India-EU Trade- Tariff and Non-Tariff Hurdles*, Working Paper Series No 13, Rajiv Gandhi Institute for Contemporary Studies.
93. Singhal, A. (2000), "Keynote Address" at the Seminar on "Winning Ways for the Future Apparel Business", in Shanbhag, V., A. K. G. Nair (2000), *Winning Ways for the Future Apparel Business*, Global Business Press, Delhi
94. Spinanger, D. (1999), *Faking Liberalisation and Finagling Protectionism, The ATC at its Best*, Background Paper prepared for WTO 2000 Negotiations, ERF/ IAI/ World Bank Workshop, Cairo, July.
95. Stuart-Smith, K. (2001), in S .Gupta (ed.) "Roadmap to Global Supremacy", Proceedings 57th All India Textile Conference, The textile Association (India) PHC Unit.
96. Technopak KSA, Images (2001), *Sizing up what India wears*, Images Business of Fashion-June, pp 66.
97. Tendulkar, S. D. (2000), *Indian Export and Economic Growth Performance in Asian Perspective*, Working Paper No. 54, ICRIER, December.
98. Tendulkar, Suresh D., T.A. Bhavani, (1997), 'Policy on Modern Small Scale Industries: A Case of Government Failure', *Centre for Development of Economics, University of Delhi, Working Paper*, no. 44.
99. Thurow, L. (1996), *The Future of Capitalism, How Today's Economic Forces Shape Tomorrow's World*, Nicholas Brealey, London.
100. Torre, J. de la (1986), *Clothing-Industry Adjustment in Developed Countries*, The Macmillan Press Ltd., Hong Kong.

101. Trela, T., John Whalley (1989), *Unraveling the Threads of the MFA*, September 1989, Seminar Paper No. 448, Institute for International Economic Studies, Stockholm, September.
102. Uchikawa (1998), *Indian textile industry- State Policy, Liberalisation and Growth*, Manohar Publishers and Distributors, New Delhi.
103. UNCTAD (2000), *Positive Agenda and Future Trade Negotiations*,.
104. Underhill, G. R. D. (1998), *Industrial Crisis and the Open Economy: Politics, Global Trade and the Textile Industry in the Advanced Economies*, Macmillan, London.
105. USITC (2001), *India's Textile And Apparel Industry: Growth Potential And Trade And Investment Opportunities*, Staff Research Study 27, Publication 3401; March .
106. Verma, S. (2000) "Restructuring the Indian Textile Industry", in Sinha, A. K., S. K. Sasikumar ed., *Restructuring of the Textile Sector in India*, Vikas Publishing House Pvt. Ltd., New Delhi.
107. Verma, S. (2000), "Steps Needed to Strengthen the Supply Chain", in Mote. V. L. ed. *Textiles and Fashion, Challenges and Strategies for the Industry*, Tata McGraw-Hill Publishing Company Limited, New Delhi.
108. Verma, S. (2001), "Impact of WTO Agreement on Indian Textile and Clothing Industry" in Chadha, G. K. ed., *WTO and the Indian Economy*, Deep & Deep Publications, New Delhi
109. Whalley, J. (1997) "The Impact of Multifiber Arrangement Phaseout on the Asian Economies", in Arvind Panagariya, M. G. Quibria, Narhari Rao ed. *The Global Trading System and Developing Asia*, published for Asian Development Bank by Oxford University Press, China.
110. World Bank (1999), "India: Cotton and Textile Industries, Reforming to Compete, Vol. I & II: Annexes", Rural Development Sector Unit, South Asia region, January.
111. WTO (2001)a, *Market Access: Unfinished Business, Post Uruguay Round Inventory and Issues*, Special Studies, April.
112. WTO (2001)b, *Comprehensive Report of the Textiles Monitoring Body to the Council for Trade in Goods on the Implementation of the Agreement on Textiles and Clothing During the Second Stage of the Integration Process*, G/L/459, 31 July.
113. Yang, Y. and Chuanshui , Z. (1998), *China's Textile and Clothing Exports in a Changing World Economy*, The Developing Economies, XXXVI-I: 3-23, March.

APPENDIX A
Garment exports to USA

MFA categories	Category Definition
239	Babies garments and accessories, cotton/mm f
336	Cotton Dresses
338	M&B ⁸⁷ Cotton Knit Shirts
339	W&G ⁸⁸ Cotton Knit Shirts
340	M&B Woven Cotton Shirts
341	W&G Woven Cotton Shirts
342	Cotton skirts
347	M&B Cotton Trousers/ Breeches/ Shorts
348	W&G Cotton Trousers/ Slacks/ Shorts
636	MMF ⁸⁹ dresses
640	M&B Woven MMF shirts
642	Mmf skirts

Garment Exports to EU

MFA categories	Category Definition
4 (incl 4C)	T Shirts knit
5	Jerseys Pullovers knit
6 (Incl 6C)	M&B shorts/ trousers
7	Ladies Blouses
8	Gents Shirts woven
15	W&G woven overcoat ctn/ mmf
26	W&G dresses
27	W&G skirts
29	W&G suits woven

Textile exports to USA

MFA categories	Product Description
218	Fabrics of yarn of different colours
219	Duck fabric
225	Blue Denim Fabric
313	Cotton Sheeting Fabric
317	Cotton twill fabric
362	Cotton Bedspreads and Quilts
363	Cotton terry and Other Pile Towels

⁸⁷ Men's and Boys'

⁸⁸ Women's and Girls'

⁸⁹ Man-made fibres

Textile exports to EU

MFA categories	Product Description
1	Cotton yarn
23	Staple yarn
2	Cotton woven fabric
3 (incl. 3A)	Synthetic woven fabric
9	Cotton Terry towel and Linen
20	Woven Bed Linen
39	Woven table linen

Figure 1

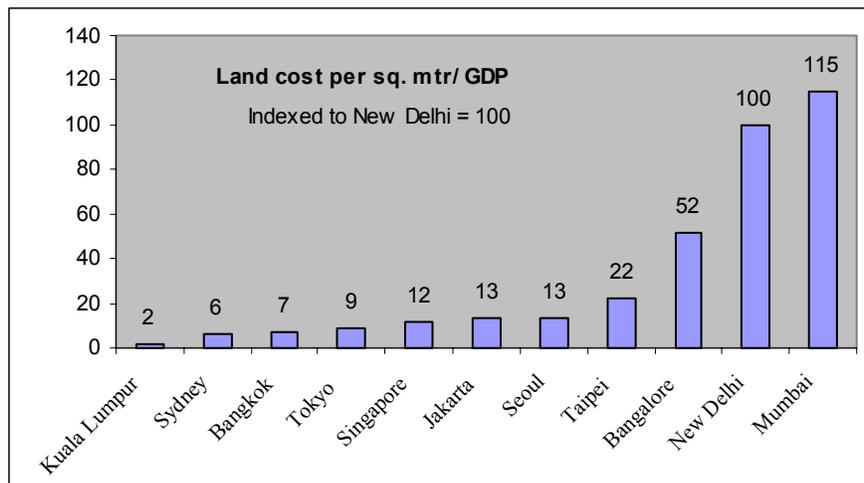


Table 1

Table 1-- Import Quota % Relative to US Market Size				
Categories	1995	2000	2004	Global Market Share*
338/339	22.30%	22.6%	25.2%	2005
336/636/836	30.4%	43.4%	57.2%	2005
340/640/840	71.5%	87.6%	106.7%	2003
341/641	72.5%	84.2%	108.9%	2003
342/642	63.0%	79.4%	103.4%	2004
347/348	25.9%	26.7%	30.5%	2005
638/639	57.9%	70.7%	90.7%	2005
647/648	42.6%	54.9%	73.2%	2005
218	30.4%	33.9%	40.5%	2005
219	142.0%	203.8%	312.5%	1995
225	18.5%	21.1%	23.8%	2005
239	51.3%	Integrated in 1998		
313	58.4%	77.5%	107.7%	2004
317	58.8%	57.0%	67.8%	2005
362				
363	26.9%	37.7%	52.9%	2005
Source: Baughman Laura M. and Kara M. Olson(1997), Prospects for Exporting Textiles and Clothing to the United States Over the Next Decade, ITCB.				
* refers to the year in which Import Quota share reaches 100 % of US domestic market size.				

Table 2

Table 3- Level of Fragmentation in different stages of Value chain across countries										
	Japan	Korea	China	Bangladesh	India	Turkey	Pakistan	Italy	mexico	USA
Spinning	-	C	F	C	C	C	C	C	-	C
Weaving	F	F	C/F	C	F	C	C	F	F	C
Processing	C	C	C	F	F	C/F	C	C/F	C	C
Made-ups	C	C	C	F	F	C/F	F	C	C	C
RMG	C	C	C	C	F	C/F	F	C	C	C
C: Consolidated										
F: Fragmented										
source: Shanbhag [2000]										

Table 3

Table 4- Weaving sector: Level of technology in India and select Countries, 1998			
Country	Installed capacity		Level of technology*
	Total looms	Shuttleless looms	
India, total**	1726590	10170	0.6%
Composite Mills	123590	7170	5.8%
US	68750	60990	88.7%
Mexico	49500	14500	29.3%
Brazil	133400	35200	26.4%
China	733300	45800	6.2%
Pakistan, Total **	221300	13200	6.0%
Composite Mills	21300	13200	62.0%
Indonesia	227000	27000	11.9%
Korea	32000	27000	84.4%
Taiwan	23090	20050	86.8%
Thailand	55000	10000	18.2%
TOTAL@	2256580	678990	30.1%
* Share of shuttleless looms in total installed looms.			
** Includes looms in decentralised powerloom sector.			
@ Excludes looms in decentralised powerloom sector			
Source: USITC [2001]			

Table 4

Table 5- Machinery and Investment Levels by Apparel Export firms (Unit:Nos)					
	Total Machines	Manual Machines	Power Machines	Investment ('000 \$)	Inv.('000 \$) per Machine
S.Korea	258.08	6.14	240.33	722.19	2.79
Taiwan	264.62	0.15	264.46	579.21	2.18
Hongkong	698.12	4.35	688.76	2456.64	3.51
China	605.15	1.5	603.65	9438.46	1.5
Thailand	572.32	0	562.32	722.25	1.26
India	119.28	37.26	75.39	29.76	0.25
Source: Kathuria and Bhardwaj, 1998.					

Table 5

Table 6- Typewise no. of machines installed by Apparel Export Firms (nos.)					
	Precutting machines	Cutting machines	Sewing machines	Special machines	Processing machines
S.Korea	2.9	12.3	134.3	77.5	31
Taiwan	2.6	7.5	185.1	49.5	12.8
Hongkong	2.3	13.2	455.4	112.7	27.9
China	2.3	13.2	450.5	104.8	34.4
Thailand	2	12.8	460.8	72.4	21.9
India	0	2.3	103.7	8.6	4.6
Source: Kathuria and Bhardwaj, 1998.					