

**Promoting the Competitiveness
of Textiles and Clothing Manufacture
in South Africa**

Research Report
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Promoting the Competitiveness of Textiles and Clothing Manufacture in South Africa

Abstract

This report presents the results of a study carried out in 1997-1998 of the textile and clothing industries of South Africa. The research combined quantitative and qualitative competitiveness analysis to identify best practices used by South African manufacturing firms in a sector which had previously benefited greatly from domestic market protection and which is increasingly facing competition from legal and illegal imports at various points along the industrial value-chain as South Africa rejoins regional and global economies.

General findings of the work include:

- Clothing firms are heavily penalized by **escalating tariff structures** which protect domestic raw material and input manufacturers against imports. This penalizes firms which prefer, for various reasons including quality and service, to access inputs from foreign suppliers. Access to foreign suppliers at world prices is a critical component of the success of major exporting countries.
- Thinking of the **fibre-fabric-apparel pipeline** in integrated terms, implying that the interests along the chain should be convergent, is a strategic blunder for the clothing end of the industry. Rather, each industry should focus on independent competitiveness strategies.
- South African industries are penalized by **economic policy instability**. Stability, or at least predictability, of macro and sectoral variables such as exchange rates, interest rates, wages, tariffs, etc. are necessary to minimize risk, encourage exports, and facilitate longer range planning.
- Use by firms of existing **government incentives**, such as duty credit certificates (DCCs) and export marketing assistance, is varied. Most exporters are quite familiar with DCCs and count on using them to help offset their costs, biased upward because of the aforementioned protection. However, many firms are confused by the range of incentives available from the DTI, and do not avail themselves of export marketing assistance.
- While most firms are continuing “business as usual” in the face of increased pressure to compete globally, an interesting subset of firms is experimenting with **alternative ways of doing business**. For some, this means moving part or all of their manufacturing off-shore, within southern Africa. For others, this means process innovations in South Africa such as developing new product lines, new information management systems, new inventory control methods, new overseas market contacts to input suppliers and to final clients, and new means of ordering work flow through the shop floor, and new forms of labor relations to improve worker productivity.
- “**Training**” needs to be at both management and worker levels. Management needs help in a wide range of modernization efforts, including in realizing how its workforce can be a potential source of valuable innovation ideas, thereby improving productivity, increasing profitability, and ultimately resulting in higher wages for a more highly skilled workforce.
- **Labor market flexibility** in terms of differential wage scales for urban and decentralized firms and in terms of accessing labor via subcontracting rather than direct hiring processes appears to be a critical element of firms’ competitiveness strategies.
- The clothing industry in South Africa is missing several **product niche opportunities** (Mandela shirts, Afro-centric designs in clothing, Afro-centric clothing itself, wildlife/sportswear products,...), both in domestic and foreign markets. Clothing exporters should focus on product development and licensing to attract and retain consumer loyalty.
- Unlike in the U.S., the South African government does not appear to support **applied technology research and development**. Such R&D is critical to the sustained competitiveness of the U.S. industry, and should figure high on the list of public-private partnerships in the textile and clothing industries in South Africa.

- South African businesses are novices at exporting. While a few firms may be experimenting with foreign licensing (rather than export) of a successful South African brand, or domestic licensing of foreign brands with the eventual goal of taking those names overseas into new markets, the vast majority of businesses are still focused on the domestic market and do not care or know how to **penetrate export markets**. This means more than simply coming up with “competitive products” to sell abroad, but rather means learning how to **penetrate the global supply chain** with effective service and support to the client importers overseas.

Stakeholders to whom these findings were presented in February 1998 reacted with great enthusiasm to the report. The study team was praised as the first group of academics who combined theory and practice, understood industrial trends and economic constraints, and offered both helpful *and* uncomfortable observations, comments, and criticisms. The private sector wanted to see this research inform policy makers both in the Department of Trade and Industry and the Parliament. Clothing Federation representatives also recommended that the analysis be extended to the regional level.

Lists of the firms which participated in the study and the individuals contacted by the researchers, as well as a copy of the questionnaire which structured the firm interviews, are available upon request from Lynn Salinger (lsalinger@aird.com).

Promoting the Competitiveness of Textiles and Clothing Manufacture in South Africa

Executive Summary

The present study focuses on a new opportunity for trade and investment in Africa, namely, in export-oriented textile and clothing sectors. Two issues, competitiveness and labour productivity, have been of particular focus in this study of South Africa's textile and clothing industries.

Both cost and non-cost factors are important determinants of a firm's competitiveness vis-à-vis international markets. Reorientation of South Africa's textile and clothing sectors toward export markets is underway as the country implements its trade liberalisation commitments to the international community. Because of its labour-intensive nature, employment generation is an important benefit of the industry, particularly for female labourers who often comprise a large proportion of the manufacturing labour force. Thus this reorientation has important implications for labour productivity and the demand for labour in South Africa.

Evolution of Textile and Apparel Production, Trade, and Regulation

Over time, as relative costs of labour and capital shift, textile and apparel manufacturing has moved from the U.S., Great Britain, and Japan, which dominated international trade of textiles and clothing in the first half of the 1900s, to lower cost countries. These global shifts were facilitated by a confluence of factors, including changes in economic policy of developing countries, the international division of labour, and the internationalisation of capital.

As the success of new developing country textile and apparel exports took hold, textile and apparel interests in developed countries grew increasingly protectionist. Under the Multi-Fibre Arrangement (MFA), operative from 1974 to 1994, textile and clothing importers established bilateral import quotas in individual product categories whenever a trading partner's exports to its market became threatening to domestic market interests. This system of regulated textile and apparel trade helped to spawn increased internationalisation of production of these very products.

Today, the MFA is dead and international textile and apparel trade is managed by the Agreement on Textiles and Clothing (ATC), signed as part of GATT 1994. The ATC lays out a process of liberalisation of bilateral import quotas from 1994 through 2005.

At the same time that an international trade policy regime is phasing out import quotas, many countries are establishing regional preferential trade arrangements with neighbouring or partner countries. In some instances, these are free trade agreements, in others they reflect outward processing traffic, whereby inputs manufactured in developed countries are processed into final product in lower wage developing countries. With respect to Sub-Saharan African (SSA) textile and clothing exports, the U.S. Congress is considering a free trade bill which would offer duty-free, quota-free access for SSA exporters to the U.S. market. Although heavily resisted by U.S. manufacturers in large part because of fears of transshipment of Asian goods through SSA, the bill is still on before Congress.

The rising importance of regional trade blocs notwithstanding, if all goes according to plan, the shape and dynamics of international textile and apparel production and trade will have changed significantly by 2005. Countries and individual textile and apparel industries are anticipating, preparing for, and beginning to adjust to the anticipated market and technological changes being felt all over the globe. These changes hold important implications for the competitiveness of firms everywhere and for the management and policy strategies pursued by firms and the governments that regulate their markets. This defines the set of challenges facing South African firms today.

Survey Findings

In order to gauge the state of preparedness of South African firms for these changes, the DTI, TextFed, CloFed, and SACTWU agreed to an EAGER study of the policy issues involved in promoting competitiveness of the industries. A research team comprised of two American and two South African researchers was constituted, and interviews were conducted in Gauteng, KwaZulu-Natal, and the Western Cape. As of January, 1998, this research team had interviewed 103 clothing and textiles firms. These firms represent a range of sizes, product types, locations, modernity of plant, labor relations, retail channels, and dependence on exports and imports. The majority of firms do both some design and manufacture, although several CMT operations and a few design houses are also included.

Firms can be classified according to several criteria, including size, type of output, location, degree of modernity of plant equipment and management, labor relations, relations with retailers, and degree of dependence on international markets.

It is important to note that there is not one route to success, and firms with almost any mix of the above characteristics can be successful. While more large firms are successful, there is wide variation within size categories. For large firms, the degree of success depends partly upon market segment but also on the way in which the factories are managed. Success in small firms depends upon knowledge of industry trends and upon investment, rather than upon low wages.

Here a tale of two companies is instructive. To keep confidentiality, these two firms are stylized and not entirely real. The stylized unsuccessful firm is a combination of the features of two large companies interviewed and the second a combination of features of five factories of three large clothing and textile firms (the full report describes stylized small firms as well). Thus no real firm exhibits all of the characteristics of the stylized firms, but the real firms are nonetheless very close to this composite picture.

One large company (company A) produces for the mass market, has little computerization of inventory, design or administrative functions, has not invested substantially in new machinery in South Africa, and quite explicitly views labor relations as purely a matter of discipline. A second large company (company B) has a more mixed market segment, ranging from up-market, relatively specialized products to more mass market items produced in long runs. This company also differs in its computerization of design and administrative functions and in labor relations. Moreover, this company is informed of and experimental in implementing modern methods of organization like just-in-time inventory control and flexible methods of moving work along the line. This company also has a policy of promoting through the ranks and of training for multi-skilling and multi-tasking. It rewards workers for suggestions that save money and it has a bonus scheme that increases the bonus percent as workers get closer to the target.

The first company, company A, has fallen on hard times and has downsized, with the ultimate goal of moving production out of the country all together. Company B is profitable and expanding. Although it has explored moving out of South Africa, it believes that there is plenty of opportunity to make money in South Africa and will stay.

The lessons from these two stylized firms are clear. While the first firm does have external conditions which are difficult, it has done little to respond creatively to the challenges. Its response is to continue to do what it has always done, only in a different location. It chooses locations which still look more like the South Africa in which it was for many years successful. The second firm, in contrast, is forward looking and flexible, changing its internal organization and strategy in response to changing external conditions.

The main conclusion about size of firm from the interviews is not that size does not matter. Economies of scale do offer certain opportunities denied to small firms, particularly with regard to investment in up-to-date technology. Size by itself, though, is not a substitute for the other factors highlighted above. Management education and spirit, the structure of the firm, and its labor relations swamp size as determinants of success. Market conditions obviously are important, but, as noted above, company A kinds of firms take the conditions as given, while company B firms try to change them.

Policy Implications

Policy implications of the interview information focus around the following themes:

- **Human capital development:** Central to firm performance is the education and skill levels of workers and managers. Government expenditures on basic literacy, adult education, and technicians will likely have the effect of “crowding in” private sector investment. Changing managerial behavior and attitudes is a more subtle problem.
- **Access to capital:** Access to working capital is a second critical area, particularly if government is concerned with growing small firms. Something as simple as bridging finance for established CMT operations can help set into motion the virtuous cycle of avoiding slack time, having a more stable work force, and achieving higher quality and productivity. Investment capital is expensive in South Africa, with rates in excess of 20%, compared with international rates below 10% in the U.S. and Europe. This clearly constrains the enthusiasm of investors in new capital equipment in South Africa. With regard to capital as technology, while other countries enjoy public-private research in the development of applied technologies to further the competitiveness of their textile and clothing sectors, we have found little evidence of this in South Africa.
- **Policy stability:** Clear, medium-term policy parameters should be established to minimize uncertainty about the macro, labor, and sectoral policy environments which greatly complicates firms’ strategic planning. While it is not necessarily the case that policy stability will overcome inherent risk-aversion in managers of company A firms, it will in any case be good as well for the more risk-taking firms. With broad changes in government now settled in South Africa, the private sector needs some assurances of stable, or at least predictable, exchange rates, interest rates, inflation rates, wage rates, tariff rates, and so forth.
- **Export promotion:** This study revealed sparse use by firms of DTI support for trade-related travel. Programs to help firms become aware of and use the available export marketing assistance would be helpful to export initiatives.

Several notes of caution are in order. The first is with respect to the underlying assumption in South Africa of pipeline cohesion among textile and clothing firms. For analytic purposes, this view is appropriate. However, from a management or firm strategy perspective, there is nothing which necessarily binds these two sub-sectors together. As they do abroad, firms in South Africa at all levels of the pipeline must be encouraged to compete.

The other caution is with respect to the informal end of the clothing sector. This segment of the pipeline is the safety valve of the sector. The temptation to the CMT firm owner, because of his/her firm’s smaller size in many instances, is to avoid compliance with wage guidelines of the Industrial Councils. The temptation to the government and union is to see this as a flouting of economic principle, and to enforce new Wage Board guidelines. It is suggested here that in the interests of job creation, zealotry be moderated cautiously.

In conclusion, there is every evidence that many South African firms are learning to compete. While firms may complain of policy instability, one clear policy message is definitely getting through. This is that South Africa, having rejoined “the family of nations” on the political front, intends to integrate its economy and its body of economic regulation with international standards as well.

While the degree of tariff reduction currently anticipated is still quite protective (effective protection, despite firms being taxed on tradable inputs, is well over 100% due to heavy nominal protection on outputs), South African firms understand that liberalisation is the wave of the future, and are reacting to it in various ways. Some are quite concerned and fear they will not survive, others are taking the necessary training, reorganisation, and modernisation steps to prepare not just to react but even to shape their own futures

within South Africa and on international markets. For those firms seeking assistance in export market penetration, several government programs now offer resources in a spirit of partnership with the sector.

Economic performance of clothing firms does not appear, from an analysis of survey data, to be related to location of the firm in the high-wage central areas or in decentralised, low-wage regions. Rather, growing firms appear to be those which are larger in size of employment, export some portion of their total sales, focus some portion of total production on higher end market segments, emphasise modernity and automation in capital investments, innovate with respect to production process improvements though not necessarily with labour process improvements.

Thus, there is considerable optimism in the industry today that collaborative efforts are beginning to yield an export strategy that will be good for business in South Africa. To the extent that the message of the link between progressive use of labour by management and improved productivity and competitiveness can be communicated widely, then there is some real hope that labour may share in the gains of export orientation as well.

Promoting the Competitiveness of Textiles and Clothing Manufacture in South Africa

I. Why this study?

The present study focuses on a new opportunity for trade and investment in Africa, namely, in export-oriented textile and clothing sectors. Two issues, competitiveness and labour productivity, have been of particular focus in this study.

South Africa's industries have long been protected from competition with world markets by high tariff and non-tariff barriers. The effect of these tariff and non-tariff barriers has been to shift domestic demand for inputs from international to South African sources, available at higher domestic prices as a result of the border interventions. This policy of protection has had two effects. First, it makes domestically produced and imported goods more expensive in South Africa than they would be in the absence of these policies. Second, it makes South African exports more expensive on international markets, because of the higher cost of inputs. As a result, the textile and clothing industries in South Africa have been inwardly focused, rather than export-oriented.

In order to compensate for input cost disadvantages, the Government of South Africa offered several export incentives schemes to emerging textile and clothing exporters. However, as part of South Africa's commitment to the WTO, duty barriers on textile and clothing imports are being lowered, and many special incentives either already have been or will be eliminated soon. Thus, South Africa's textile and clothing firms are increasingly having to compete with international suppliers in South Africa, neighbouring countries, and abroad. This implies a steep learning curve for the South African textile and clothing sectors, which have had limited interactions to date with world markets. During the tariff phase-down period, South African firms must learn to contend with the pressures of globalisation in their industries. They must learn to compete.

Competitiveness is a term which has assumed a broad number of definitions in both the economics and business literatures. While some use it in a firm management sense to mean "profitability," whether assessed in financial or economic prices (Cockburn et al., 1997; Siggel, 1997), others in a broad sense to compare economic conditions across national platforms (World Economic Forum, 1996), the term is used here in both a microeconomic sense to evaluate economic profitability, or comparative advantage, as well as in a management consultancy sense to evaluate firms' strategic positioning. *Comparative advantage* is what households or firms enjoy when they use domestic resources, or factors of production, in an efficient way to create positive economic value-added. *Competitiveness* is what households or firms enjoy when they understand how to combine the process of efficient resource transformation with strategic thinking on product design, firm organisation, firm linkages to suppliers and customers, inventory management, marketing, etc. (Porter, 1990; Fairbanks and Lindsay, 1997).

This study takes the approach that it is important to assess both cost and non-cost factors in determining a firm's competitiveness vis-à-vis international markets. The clearest evidence of a firm's international competitiveness, is if it produces profitably relative to international suppliers, either as an exporter or import substituter. Moreover, the most competitive firms are able to increase their market share over time, relative to these same international suppliers.

In attempting to understand the *sources* of that competitiveness, economists must consider a number of variables (Salinger, 1997), including:

- costs,
- extent of market regulation,
- access to trade agreements,
- access to incentives programs,

- management practices, including strategies for the use of labour, and
- production and marketing strategies of the firm.

The reorientation of South Africa's textile and clothing sectors toward export markets may have important implications for labour productivity and the demand for labour. As noted in Dickerson (1995, p. 10), "textile and apparel production often has been a first industry for [developing] countries as they have moved toward economic and industrial development." This is true for a number of reasons. Start-up capital costs, particularly in the apparel side of the industry, are low and the physical capital base is relatively mobile. Labour requirements are high, making location of these industries attractive in countries with large supplies of relatively inexpensive labour. Employment generation is thus an important benefit of the industry, particularly for female labourers who often comprise a large proportion of the manufacturing labour force. Income derived by women from such "off-farm employment" is often the first contribution toward diversification of household income sources away from a traditionally heavy reliance on agriculture.

This topic is relevant in South Africa today. When assessed from the perspective of per capita gross national product, South Africa is considered an upper-middle income country. However, this aggregate measure masks a wide, bipolar distribution of income, a legacy of its apartheid past. Thus, many segments of the country's population face challenges with regard to improving education, housing, health, and welfare which parallel those of lower income countries. South Africa also faces important challenges in the area of employment generation. With as much as forty percent of the employable labour force unemployed in some parts of the country, labour intensive development strategies are key political topics of discussion (Standing, Sender and Weeks, 1996). The labour intensive nature of clothing assembly makes this sector an important one, therefore, from the perspective of job creation for the country.

These two themes outline the breadth of focus of this study.

EAGER research is demand-driven and participatory. The topic was originally identified by the EAGER/Trade chief of party in conversation with the Trade and Industrial Policy directorate of the Department of Trade and Industry. The Department of Trade and Industry's Textile, Clothing, and Footwear directorate, the Textile and Clothing Federations, and the South African Clothing and Textile Workers' Union all were asked to participate in this study. Members agreed to vet this draft report, prior to its final publication. In addition, the study reached out to members of South Africa's research community from the universities of Witwatersrand, Natal-Durban, Durban-Westville, and Cape Town with previous or ongoing experience in these areas.

This report is the result of collaborative efforts among four researchers. Lynn Salinger, Senior Economist at AIRD, Cambridge, Massachusetts, conceptualised the study and promulgated a survey approach to information gathering. She worked on the international economic and policy environment, wrote the paper's strategic implications, and is responsible for the integration of individual background working papers into this document.¹ She also collected information from the World Trade Organisation's Textile Division, and various American government, business, and academic organisations in the textile and clothing fields. Diane Flaherty, while on sabbatical from the University of Massachusetts/Amherst's Department of Economics and a visiting researcher at the Development Bank for Southern Africa in Midrand, oversaw the research in KwaZulu-Natal (KZN) undertaken from March to June 1997. She returned to South Africa in January 1998 to interview firms operating outside of Durban in Isithebe, Port Shepstone, and Tongat. Malcolm Keswell, while at the University of Natal, assisted Dr. Flaherty with the KZN textile and clothing firm survey work, and looked more broadly at the status of manufacturing in the region and the country. Haroon Bhorat, at the University of Cape Town's Development Policy Research Unit, analysed Industrial Development

¹ Haroon Bhorat, "Cotton, Textiles and Clothing in South Africa"; Haroon Bhorat, "Clothing and Textile Industries in the Western Cape"; Malcolm Keswell, "Rags to Riches? A Descriptive Analysis of the Manufacturing Sector in KwaZulu Natal with specific reference to the Clothing and Textile Industries" (December 18, 1997).

Corporation sectoral data with respect to clothing and textiles, directed surveys of the Western Cape clothing and textile firms, and prepared the study's financial and economic cost analyses.

This report was presented at an EAGER workshop held in South Africa in February, 1998. It was also previewed with members of the Clothing Federation board, as well as at a special dinner seminar convened by the Cape Clothing Manufacturers' Association. The authors wish to thank the South African Department of Trade and Industry, the Textile and Clothing Federations, as well as the South African Clothing and Textile Workers' Union, for their help in understanding the issues, accessing reports and information, and identifying survey participants. This report benefited enormously from their contributions and suggestions. The authors are also indebted to the hundred-plus firms which gave so generously of their time and business information. However, the final report reflects the views of its authors only and in no way engages the positions of the aforementioned organisations. The analysis and interpretation of global trends and South African cost data is, however, our own.

The rest of this report proceeds as follows. Chapter II presents an overview of the role of manufacturing in the South Africa's economy. Chapter III describes the international textile and clothing market issues with which South Africa's industries must contend. A detailed policy and economic profile of South Africa's textile and clothing industries is provided in Chapter IV. Qualitative findings from our survey of firms in the Western Cape and KwaZulu-Natal provinces are the topic of Chapter V, while Chapter VI describes the analysis of financial and economic profitability of stereotypical firm. Strategic implications of the study are offered in Chapter VII, while future directions of the study and preliminary conclusions are presented in Chapter VIII.

II. Introduction to Manufacturing in the South African Economy

The inter-linked nature of the world economy is such that countries and regions can no longer attempt development on the basis of autarky. The external context has a critical influence on the internal development dynamics of a country or region, closing off possibilities while providing new opportunities.²

South Africa's post World War II import substituting industrialisation (ISI) strategy relied heavily on the country's mining industry and the social and economic structure of apartheid. The ISI strategy immediately boosted demand for intermediate inputs and proved central to establishing the foundations of the country's manufacturing sector which became centralised in two locations; the former Pretoria-Witwatersrand-Vaal triangle and the Durban Functional Region (DFR).

The initial success of this economic development strategy was illustrated by the rapid growth of GDP, which peaked at 6 percent per annum between 1960-1965. In this period, the growth of manufacturing output and employment growth peaked at 9.9 percent and 6.8 percent respectively. However, while the strategy succeeded in producing consumer substitutes, it was dependent upon importing capital goods, which required the expenditure of more foreign exchange than was generated from the export of primary goods.

Owing to these structural factors, economic growth began to slow down by the early 1970's and entered a spiral of decline. At the same time, the country entered a period of increasing political turbulence and international isolation. In addition, a shift in policy was needed to unlock the foreign exchange constraint and a looming balance of payments crisis. The government of the time thus decided that this shift in emphasis should be towards an export oriented growth strategy and further import liberalisation.

Based on the recommendations of the Van Huysteen Committee, a new reinforced system of export incentives was introduced in September 1980. Essentially, this strategy sought to offer local producers incentives to penetrate overseas markets. However, its introduction coincided with the massive real appreciation of the Rand and the onset of world recession. These factors rendered the change in policy ineffective and actually resulted in a decrease in exports. Yet despite the highly unstable nature of the South African economy throughout the 1980's, substantial changes in policy were made (Bell, 1993).

In an attempt to compensate exporters for these negative incentives, the government introduced the General Export Incentive Scheme (GEIS, discussed in greater detail in Chapter IV) in April 1990. This strategy was further augmented by other general schemes, which allowed exemptions or rebates on imported goods that go directly into exports, accelerated depreciation rates, and subsidised loans.

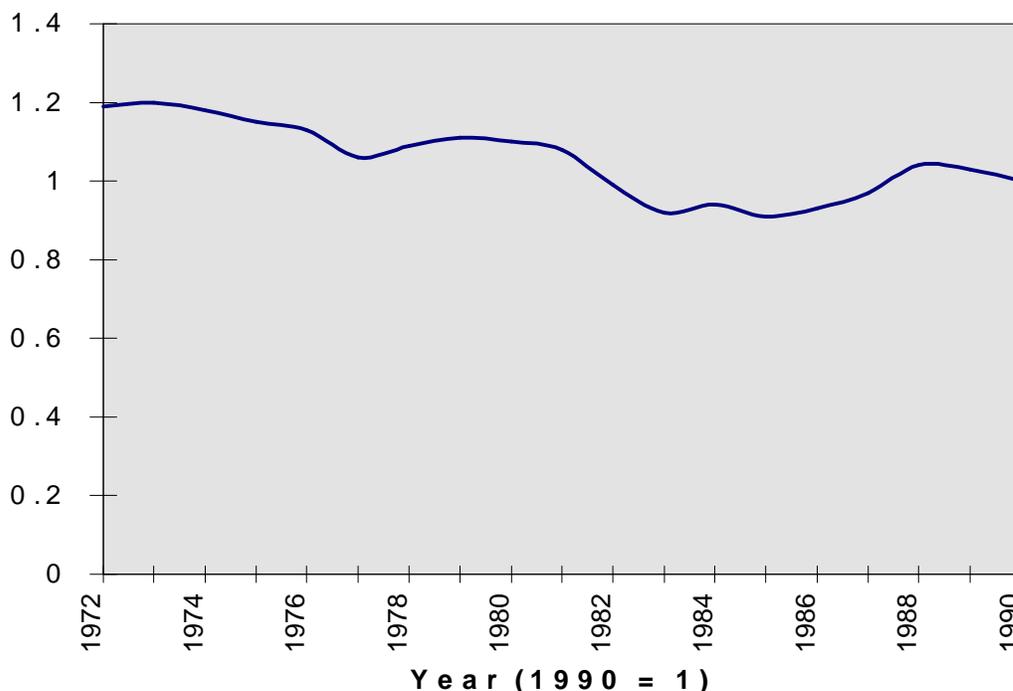
Within this context, the general performance of the manufacturing sector in South Africa has been rather poor over the last twenty years. Of particular concern is its continued poor performance after the introduction of GEIS. The early 1990s were an immensely difficult period for manufacturing with an average annual change in industrial output of -2,6 percent (Harrison and Morris, 1996). More conservative estimates of total factor productivity for 1981-90 are around -1.9 percent.³

Figure 1 shows indices of total factor productivity growth (TFPG) in the South African manufacturing sector over the period 1972 to 1990. The graph indicates that TFPG in South Africa over the two decades since 1970 has been very poor. Several theoretical perspectives have been offered in explanation of why South African manufacturing stagnated to such a large extent in the period 1972 – 1990 (Gelb, 1991; Moll, 1990; Meth, 1990).

² Quoted from Government of KwaZulu Natal (1996).

³ This is in contrast to the World Bank estimate of 0.05 % for 1983-1990. See Belli *et al* (1993).

Figure 1: South African Manufacturing: Total Factor Productivity (1972-1990)



One very influential study that contributed to this debate was the Industrial Strategy Project (ISP).⁴ A key finding of the ISP was that South Africa's protective trade regime and the lack of international competitiveness in South African manufacturing were important barriers to TFPG over the 70's and 80's. Recently, others have argued likewise (Belli *et al* (1993); Fallon (1993); Moll (1990)). Still, the divide over the interpretation of the poor performance of manufacturing *generally*, over the two decades in question,⁵ has been very controversial and sometimes quite heated.⁶

Since South Africa's Government of National Unity was elected in 1993, it has had to contend with two new economic realities. The first is the result of the end of apartheid, which has brought the international economic community once again to South Africa's door, ready to invest in and trade with South African firms. This enthusiasm has created particular macroeconomic pressures for South Africa's leading economic policy makers. By 1995, increased portfolio capital inflows caused further appreciation of the South African Rand, and the competitiveness of South Africa's industries continued to suffer. Thus, the attack on the Rand

⁴ The ISP was initiated by the Congress of South African Trade Unions (COSATU) in 1990. A series of industrial sector studies was undertaken by South African researchers to contribute to the design of industrial policy for the emerging new South Africa. Within the sectors of concern to this paper, two reports stand out: Johann Maree, *An Industrial Strategy for the Textile Sector* (University of Cape Town Press, 1995) and Miriam Altman, *An Industrial Strategy for the Clothing Sector* (University of Cape Town Press, 1994).

⁵ See Bell (1993) and Joffe *et al* (1993) for opposing views.

⁶ See Bell (1996), Natrass (1996), and Valodia (1997) for different interpretations to that of the ISP; and see Kaplinsky (1996) and Kaplan and Lewis (1996) for the ISP's response to these criticisms.

which occurred in early 1996 by the international financial markets was welcomed in some quarters for enhancing the competitiveness of South Africa's industries. In its macroeconomic strategy announced in mid-1996 ("Growth, Employment and Redistribution," or GEAR), the Government recommended a conservative fiscal and monetary program to dampen inflation and stabilise the Rand. Although strongly supported within the government, the GEAR is criticised for raising domestic interest rates, curbing economic expansion, and thereby exacerbating unemployment, of particular concern in a country where employment patterns are already highly skewed.

The second new economic reality is South Africa's accession to the World Trade Organisation (WTO) via its signing of the Marrakech Agreement (referred to as GATT 1994). This treaty, signed to date by 134 countries, integrates for the first time a broad range of products and a wide community of nations into an international legal framework for trade. Previous international trade agreements under the GATT (General Agreement on Tariffs and Trade) had established rules of trade for a subset of manufactured products. GATT 1994 brought in such products as agriculture, textiles and clothing, services, and investment-related measures. Moreover, membership in the WTO now encompasses most developing countries. Some of these in Sub Saharan Africa have not been active traders to date. Many others in Asia (China's current observer status is one notable membership exception here) and Latin America, however, have become important players.

GDP and Manufacturing Production

Recent figures indicate that the manufacturing sector is the highest contributor to South Africa's GDP at 24 percent (South African Reserve Bank, 1997), followed by trade (15 percent) and finance (15 percent). Hence, the levels of growth in the manufacturing sector largely influence growth in GDP.

Table 1: Seasonally adjusted GDP growth (1990 constant prices)

Year/ Quarter	% change in GDP (annual rates)	% change in Manufacturing (annual rates)
1993	-1	2.7
	2	5.1
	3	7.1
	4	5.0
1994	-1	-2.9
	2	2.5
	3	4.2
	4	6.5
1995	-1	2.1
	2	2.4
	3	2.8
	4	2.6
1996	-1	3.6
	2	4.1
	3	3.2
	4	2.8
1997	-1	-0.7
	2	2.4
	3	0.3

Source: Central Statistical Services (1997a.)

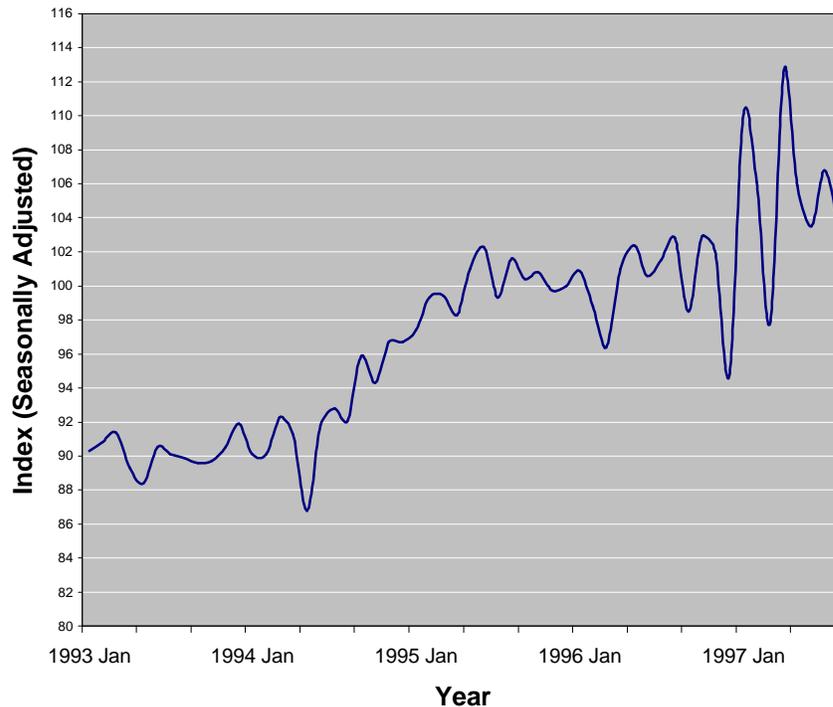
Table 1 shows the most recent GDP growth figures (at 1990 constant prices) alongside the percentage change in annual rates of GDP at factor incomes for the manufacturing sector. This year's figures are rather poor, on average, compared to last year, even though the rate picked up from a slump of -0.7 percent in the

first quarter to the positive growth rates of 2.4 percent and 0.3 percent in the two quarters which followed. Part of the reason for this poor performance has been accorded to the current downturn in the manufacturing sector (Central Statistical Services, 1997 a).

This can also be seen from Figure 2, which shows indices of the physical volume of manufacturing production for the period January 1993 to August 1997. Although there has been a gradual increase in manufacturing production over the last five years, the pace of this change is still far too slow. Moreover, the effects of shocks such as the rapid liberalisation of tariffs, the resultant increase in foreign competition, the scrapping of exchange controls, and the decrease in the value of the Rand are now beginning to weigh quite heavily on the sector.

Figure 2 shows that even though there was significant improvement in manufacturing production after the 1994 slump (an increase of about 10 percent by the second quarter in 1995) performance in 1996 and 1997 has been rather poor. Indeed, manufacturing production for the last three months up to August 1997 shows a decrease of 0.7 percent after seasonal adjustment, compared with the previous quarter. Data not reported here show that the main contributors to this decrease can be narrowed down to the basic iron and steel products industry; the paper industry, the chemical industry, and the metal products industries (Central Statistical Services, 1997 b).

Figure 2: Indices of the Physical Volume of Manufacturing Production (1995 =100)



Employment in the Manufacturing Sector

Within the private sector, manufacturing is the largest employment sector, and accounts for approximately 42 percent of all private non-agricultural employment (South African Reserve Bank (1997). However, the rate of employment growth is very poor and the effect of the poor growth in manufacturing productivity has worsened this situation.

Differential patterns of employment growth have also been observed for the various industries within manufacturing, where some industries have experienced significant absolute increases in employment, while others have had quite the opposite experience. Of those industries that have benefited, the largest absolute increases since 1990 have been in clothing and electrical machinery. By contrast, the food and textiles industries experienced major job losses between 1990 and 1996.⁷

Investment Expenditure in the Manufacturing Sector

In terms of levels of investment achieved, the highest proportion of fixed investment has gone into the manufacturing sector (the leading industries being food; wood, furniture, paper and printing; chemicals; and base metals), with fixed capital stock steadily increasing from about just under R100 000 million in 1990 to about R120 000 million in 1996. The majority of this investment (80 percent) is on machinery and equipment (South African Reserve Bank, 1997).

Trade and Protection Levels

Certain sub-sectors of manufacturing are struggling to adjust to the rapid and extensive exposure to foreign competition. Trade liberalisation in the form of deregulation of local production and marketing, removal of import surcharges, and the reduction of import tariffs, has in some measure contributed to the present deficit on the current account of the balance of payments. Large-scale illegal imports have worsened this exposure,

⁷ Central Statistical Services (1997), cited in NEDLAC (1997).

and this has resulted in many local manufacturing firms being unable to compete on a equal footing. This situation has been even further compounded by the change in the structure of South African manufactured exports from gold to non-gold merchandise, whereas in the past, high gold exports could act as a buffer against a negative balance of payments (NEDLAC, 1997).

Table 2 shows the structure of South Africa's exports of manufactured goods, classified by major industry groups within the manufacturing sector, and average annual growth rates of manufactured exports.

Table 2: Total Manufactured Exports: Shares, Structure, and Growth Rates

Industry	% Share of Industry in Total Manufactured Exports			Average Annual Rates of Growth of Exports in Constant 1985 US Dollars (%)					
	1970	1980	1985	1990	70-75	75-80	70-80	80-85	85-90
Food products	25.4	13.1	11.5	9.7	10.8	-3.7	3.3	-11.7	4.8
Beverages	0.6	0.7	1.0	3.0	6.6	17.2	11.8	-3.8	36.1
Tobacco		0.2	0.2	0.6	109.9	1.4	45.9	-11.6	38.4
Textiles	12.3	2.8	4.9	5.4	-10.1	1.0	-4.7	0.1	11.9
Clothing	1.2	1.5	2.3	1.3	20.2	6.0	12.9	-2.8	-2.9
Leather products	0.6	0.3	0.5	0.6	1.5	4.4	2.9	0.4	11.9
Footwear	0.2	0.4	0.3	0.3	3.6	32.1	17.0	-17.1	10.8
Wood products	0.2	0.6	0.8	1.0	21.5	19.1	20.3	-4.8	16.4
Furniture	0.1	0.3	0.3	0.7	12.6	49.0	29.5	-11.1	28.4
Pulp & Paper	2.1	1.5	2.8	3.3	3.1	11.2	7.1	1.2	12.9
Printing	0.3	0.2	0.2	0.4	29.8	-12.4	6.6	-13.2	22.8
Chemicals	7.0	12.9	14.1	10.4	8.1	27.3	17.3	-8.9	3.2
Rubber products	0.3	0.2	0.2	0.3	8.1	27.3	17.3	-8.9	3.2
Plastic products	0.2	0.1	0.1	0.2	-12.6	7.3	-3.1	-3.9	32.0
Pottery					28.8	-24.8	-1.6	-14.6	25.5
Glass	0.3	0.3	0.4	0.5	-1.0	23.6	10.6	-6.1	14.9
Non-mineral metal products	0.8	0.7	0.4	0.6	13.9	5.7	9.7	-22.1	19.8
Basic metals	23.7	40.4	42.1	33.3	2.0	33.0	16.4	-9.7	4.6
Metal products	2.9	1.8	1.4	2.6	10.6	-0.1	5.1	-14.9	24.9
Machinery	3.9	2.3	2.0	3.1	1.7	8.1	4.9	-13.2	19.7
Motor Vehicles	0.4	0.6	1.0	1.5	8.7	25.4	16.8	-2.3	18.7
Transport equipment	3.0	0.9	1.0	4.1	6.3	-10.3	-2.4	-8.7	46.3
Other manufacturing	13.1	17.2	11.9	15.5	27.5	0.9	13.4	-16.8	15.7
TOTAL	100	100	100	100	9.5	11.2	10.4	-10.3	9.5

Source: Bell (1993)

The table shows quite clearly the change in exports with the consistent decline of gold and other precious minerals relative to other non-gold manufactures. Indeed, as already mentioned, non-traditional manufactured exports are now seen as the key component of any export driven growth strategy South Africa may want to pursue. The key question however, is how to make these industries more internationally competitive. Related to the above poor performance of manufactured exports is the argument that an important constraint to accelerated growth of exports over this period was indeed the high levels of protection that existed in manufacturing. Some have argued that the effect could not be as great as that which it was made out to be as the South African government had already started large scale liberalisation attempts both in the 70's and then more prominently in the 80's (Bell, 1993). Also the claimed link between complete liberalisation of foreign trade and accelerated expansion in *appropriate* manufactured exports in the case of South Africa is very difficult to establish. Notwithstanding this, for a variety of reasons not least of which includes the seeming irreversibility of the particular path of trade policy reform taken by the previous trade regime, South Africa has opted for comprehensive and rapid reductions in trade tariffs and a complete eradication of quantitative restrictions. This has resulted in the persistence of a deficit in the current account in

the balance of payments. Indeed, recent data from the Southern African Customs Union indicates that the manufacturing sector accounts for about 63 percent of exports and about 89 percent of imports.⁸

In order to place the above discussion in context, it is important to consider briefly the actual extent of protection from foreign competition that local manufacturing firms received. Table 3 shows a variety of industry level protection indicators.

Table 3: South Africa: Industry Protection Levels

Industry	Nominal Protection		Protection on Inputs	Protection on Outputs	Effective Protection	Anti-Export Bias Coefficient
	Wtd	Unwtd				
Food, Beverages and Textile, Clothing and Leather	16	24	15.2	13.7	8.8	1.03
Wood and Wood Products	66	62	27.8	43.6	93.6	1.64
Paper and Printing	10	22	14.0	21.7	39.7	0.97
Chemicals, Petroleum, Coal	4	13	9.5	13.3	22.2	0.70
Non-Metallic Minerals	15	22	7.5	18.9	50.6	1.27
Basic Metals	103	27	5.2	19.8	34.3	1.20
Metal Products	8	8	4.7	11.2	23.2	1.14
Other Manufacturing	30	20	17.1	18.2	20.3	0.82
Total	19	35	2.8	10.9	62.8	-
	-	-	12.6	17.8	30.3	-

Sources: Adapted from Belli *et al* (1993), Industrial Development Council (1990, 1996), and Holden (1993)

Notes:

1. Nominal Protection reflects the difference between local and international prices. The average nominal protection per sector according to the Standard Industrial Classification is calculated by weighing the nominal protection rate for all products with the corresponding imports per product.
2. Effective protection shows the increase or decrease in value added for a production process brought about by a particular tariff regime and thus gives a more accurate picture of the level of tariff protection. It is calculated as the difference between the value added that will be generated at world prices and the value added that will be added at domestic prices.
3. The Anti Export (AEB) Bias coefficient measures the degree to which policies increase value added when firms sell goods in the domestic market compared to when they sell the same goods in the export market. If policies have no influence on value added, the anti export bias coefficient equals 1.00. If compared to a free trade situation, policies raise value added more in the domestic market than in the export market, the AEB coefficient is greater than 1.00.

The calculations show quite clearly that within the manufacturing sector, the textile, clothing, and leather products and non-metallic minerals enjoyed the highest levels of nominal protection. Nominal rates of protection, however, give only a partial indication of the effect of the trade regime. In order to take into account the full effect of protection, both on inputs as well as outputs, the effective rate of protection must be calculated. The table shows that at the two-digit level, the textile and clothing industry is afforded the highest level of protection. "Other manufacturing" and the chemical industry follow closely. On average, the manufacturing sector receives an effective protection rate of 30.3 percent.

The table also gives an indication of those industries that are biased against exports because of past policies. This is reflected in the degree of anti-export bias (AEB). Overall, past trade regimes in South Africa were considered biased against exports (Belli *et al* (1993) and Joffe *et al* (1993)). In order to combat this, South Africa introduced several export subsidy schemes to counteract the bias against exports. These included drawbacks, exemptions and the tax free General Export Incentive Scheme (GEIS). The result was that export subsidies increased with the level of beneficiation (value-added processing), the level of local content, and the value of the Rand.

The net effect of selective protection and targeted export incentives is reflected in the anti-export bias coefficient. As a result of the high level of dispersion, the net effect of policies is disparate. Table 3 shows that the anti-export bias coefficient ranges from a high of 1.64 for textiles to a low of 0.70 for paper and

⁸ Industrial Development Council cited in NEDLAC (1997: 72).

paper products. Of the nine industries for which the figure has been calculated, an anti-export bias existed in five industries- the most extreme case of anti-export bias being in the Textiles, Clothing and Leather group of industries. By contrast, the metal products and paper and paper products industries have historically been given quite the opposite treatment, with both these groups being more export oriented.

In summary, the overall macro position of South Africa, with its sluggish growth and overvalued Rand, combined with low relative levels of investment expenditure and high effective and nominal rates of protection in the textile and clothing sectors per se, have greatly weakened South Africa's textile and clothing sectors with respect to their ability to penetrate export markets. Chapter III describes international trends both with respect to production and trade as well as with respect to the international policy regime which has governed these to date.

III. International economic and policy environment

Evolution of Textile and Apparel Trade

Historically, the development of textiles and apparel manufacturing has been an important “first step” of many countries’ industrialisation progressions (Dickerson, 1995). Over time, as relative costs of labour and capital shift, textile and apparel manufacturing has moved from the U.S., Great Britain, and Japan, which dominated international trade of textiles and clothing in the first half of the 1900s, to lower cost countries (or “production platforms”) (Park and Anderson, 1991). This phenomenon has taken place in successive waves over a period of more than forty years. In Asia for example, this induced the movement of labour-based clothing industries out of Japan to South Korea, Hong Kong, and Taiwan, then to Mauritius and Bangladesh, and most recently into Madagascar, Viet Nam, and Indonesia.

As seen in Table 4, the sources of textile and apparel imports into the U.S. has shifted from 1983 to 1996. Whereas in 1983, Asian countries (with the exception of Italy) were in the top five textile suppliers, in 1996 the top five included the European Union, Canada, and Mexico. The EU ranking shift is simply a function of taking the region as a whole (its regional contribution had not changed from 1983), however, the importance of NAFTA as a textile supplier is now evident. Similarly, with regard to apparel imports, the contributions of China and Hong Kong may not have changed, but Mexico in 1996 contributed 9.0 percent of U.S. imported clothing, versus only 1.8 percent in 1983. This underscores the importance of regional trade agreements in securing access to foreign markets.

These global shifts have been facilitated by a confluence of factors, including changes in economic policy of developing countries, the international division of labour, and the internationalisation of capital. Driven by the need for cost-competitiveness, a key element in the successful development of export-oriented apparel industries has been access to inputs imported from world markets at world prices. For the exported final garment to remain cost-competitive in the consumer market abroad, garments must be assembled in low wage countries where the internationally sourced fabric and trim required for assembly are imported at low or zero duties. Many developing countries had pursued strategies of import substitution to encourage domestic industrialisation back in the 1950s and 1960s. Imports were therefore subject to highly protective tariffs. In order to promote exports, these protective walls had to be circumvented. Some developing countries began to offer preferential duties and other advantages (e.g., relaxed labour codes, modernised power and telecommunications facilities) to enclave export industries, frequently organised in industrial parks known as “export processing zones” (Salinger, Savarese, and Amvouna, 1996). In addition to duty advantages, a nexus of efficient trade related institutions such as customs services, port facilities, banking, telecommunications, domestic truck/rail transport, and sea/air transport in/out of the country had to be developed for goods to circulate without significant constraint.

The economies of East and Southeast Asian countries such as South Korea, Malaysia, Indonesia, and Thailand, having implemented such liberalised trade facilitation policies (in combination with human capital investments), have grown at dramatic rates. Annual per capita income growth rates (1980 to 1993) in these countries are among the world’s highest, ranging from 8.2 percent for South Korea, 6.4 percent for Thailand, 4.2 percent for Indonesia, and 3.5 percent for Malaysia. Many of these economies are no longer agricultural, and many, their current financial crises notwithstanding, are no longer considered “developing.” In Indonesia, for example, agriculture represented 45 percent of gross national product in 1970, but only 19 percent in 1993. In Thailand, manufactures represented 8 percent of total merchandise exports in 1970, and 73 percent in 1993.

The currency crises of late 1997 and early 1998 are a reflection of the surge in growth unaccompanied by banking and foreign exchange regime reforms. As currencies in the region overheated, central bankers failed to keep them at equilibrium rates but instead allowed them to become overvalued. This led to increasing investments in non-tradable sectors such as real estate and construction, with credit allocation reflecting cronyism rather than objective banking criteria, due to under-regulation in the financial sector. The sound of

speculative bubbles bursting across East and Southeast Asia has made for one very large bang, as international capital makes a very hasty retreat from the region.

In order to help other developing countries which had not been on the vanguard of such reforms to achieve similar economic growth results, “structural adjustment” programs were introduced in the 1980s. The phrase refers to the bundle of economic policy and institutional reforms promoted by multilateral development organisations, the purpose of which has been to liberalise economies, promote integration with external markets, enhance growth, and improve incomes.

There have always been differences in resource availability and factor costs between so-called developed and developing countries. However, certain developing countries only became interesting as offshore production platforms when they adopted an open orientation toward international markets. By managing local currencies to keep their values at equilibrium levels, lowering tariffs and duties on imports, eliminating quantitative barriers, streamlining procedures for foreign capital inflows, modernising energy, port, and telecommunications infrastructure, and reducing or eliminating government intervention in production and marketing of goods, governments helped to transform their countries’ economic policy environments into ones conducive to international trade.

At the same time, technological advances in electronic communications, international shipping, and management have facilitated a breakdown of manufacturing processes. Reduction of manufacturing to small, simple tasks enables multinational firms to contract these tasks to foreign collaborators, partners, or suppliers around the world. Unskilled or semiskilled labour in developing countries is hired to carry out these simpler tasks, while the more complex aspects of design and co-ordination of activities is managed by higher paid skilled labour in developed countries. This characterisation of the international division of manufacturing labour is a generalisation of the newest stage in manufacturing, which in turn will be replaced as a broader pool of skilled labour is trained outside of the developed world.

Table 4: Principal Suppliers of U.S. Textile and Apparel Imports

(Share of Total Import Value, %)

Textiles					Apparel					
Country:		Country:			Country:		Country:			
1983 rank	1983	1996	1996 rank	1996	1983 rank	1983	1996	1996 rank	1996	
1	Japan	18.6	5.2	1	European Union	22.2		1	China	15.3
2	China	7.8	1.7	2	Canada	12.2		2	Hong Kong	9.7
3	Italy	7.5	EU 22.2	3	China	10.3		3	Mexico	9.0
4	Korea	7.5	6.8	4	Mexico	8.3		4	European Union	5.2
5	Taiwan	6.9	6.6	5	Korea	6.8		5	Taiwan	5.0
6	Hong Kong	4.9	1.7	6	Taiwan	6.6		6	Dominican Republic	4.2
7	India	4.6	6.4	7	India	6.4		7	Philippines	3.7
8	United Kingdom	3.8	EU 22.2	8	Japan	5.2		8	Korea	3.7
9	Canada	3.7	12.2	9	Pakistan	4.3		9	Indonesia	3.5
10	Brazil	3.5	1.5	10	Thailand	1.9		10	India	3.4
11	Germany	3.5	EU 22.2	11	Turkey	1.7		11	Malaysia	3.0
12	France	3.0	EU 22.2	12	Hong Kong	1.7		12	Thailand	2.9
13	Pakistan	3.0	4.3	13	Brazil	1.5		13	Honduras	2.9
14	Bangladesh	2.5	0.6	14	Indonesia	1.4		14	Bangladesh	2.8
15	Mexico	2.3	8.3	15	Israel	1.2		15	Sri Lanka	2.6
16	Belgium	1.9	EU 22.2	16	Switzerland	0.8		16	Canada	2.5
17	Switzerland	1.3	0.8	17	Philippines	0.7		17	United Kingdom	2.0
18	Netherlands	1.2	EU 22.2	18	Bangladesh	0.6		18	Haiti	1.8
19	Thailand	1.0	1.9	19	Sri Lanka	0.6		19	Indonesia	1.7
20	Peru	1.0	0.2	20	Malaysia	0.6		20	Costa Rica	1.7
21	Portugal	0.9	EU 22.2	21	Egypt	0.5		21	Romania	1.6
22	Spain	0.9	EU 22.2	22	Russian Federation	0.4		22	Germany	1.5
23	Philippines	0.9	0.7	23	Dominican Republic	0.3		23	Colombia	1.2
24	Colombia	0.7	0.2	24	Australia	0.3		24	Uruguay	0.8
25	Egypt	0.6	0.6	25	Czech Rep.	0.3		25	Pakistan	0.8
										0.8

Sources: 1983: Cline (1990), p. 58; 1990: WTO G/L/184

Notes: In 1983, seven of fifteen EU members represented in 1983 for 22.7% of textile imports and four of fifteen EU members represented for 5.2% of apparel imports.

The result of this international division of labour has been a steep increase in import dependence by developed countries for certain products. This is reflected in the evolution of import dependence of the U.S. textile and apparel sectors, as seen in the figures below. While import dependence for textiles has nearly doubled from 1961 to 1995 for textiles, it has increased well over ten fold for clothing products.

Table 5: U.S. Consumption of Textiles and Apparel

(Imports as % of Domestic Consumption)

Year	Textiles	Apparel
1961	4.5	2.1
1965	4.9	3.4
1970	4.9	6.0
1975	3.8	9.5
1980	4.6	14.5
1985	7.1	24.0
1990	7.4	31.2
1995	8.7	38.3

Sources:

1961-1986: Cline (1990), pp. 27 & 35;

1987-1996: U.S. Department of Commerce, Bureau of the Census, International Trade Administration, www.ita.doc.gov/industry/otea/usito98/tables/22.txt

A third element in this process affecting the globalisation of textiles and clothing production and trade is the internationalisation of capital supply. Trade today does not simply occur because a country has something to sell. Increasingly, it takes place because a country has something it wants to buy, and it contracts others to make it. This means that investments often precede trade. The heightened mobility of private international capital facilitates this contracting process. Both portfolio and direct investment capital circulate readily around the world, and now provide an important external source of growth financing for many emerging market firms, in addition to public grants and loans from aid development agencies.

Capital flows into emerging markets consist of private direct investment with private clients, private portfolio investment into equity and bond markets and venture capital funds, public sector grants and loans from bilateral and multilateral development agency sources, and private bank loans to public and private sector clients. International lending by development agencies, once the main source of capital for developing countries (80 percent in the 1970s), has decreased dramatically in relative importance (only 10 percent in the early 1990s), while that of portfolio and foreign direct investment (FDI) has increased substantially. Whereas FDI traditionally comprised the larger portion of private flows, by the early 1990s the relative contribution of portfolio investment (59 percent) had overtaken that of FDI (31 percent), with the remainder contributed by public sources (Jaspersen et al., 1995).

These breakdowns differ dramatically by region. The *volume* of flows to Latin America and the Caribbean still exceeds that into East and South Asia combined, although *growth into* Asia is stronger than growth of capital flows into Latin America and the Caribbean. FDI is most important in the Middle East and North Africa (53 percent of capital inflows, compared with 43 percent for portfolio investment, against a net outflow on the public international lending side equivalent to 35 percent of FDI plus portfolio investment), whereas portfolio flows contribute 74 percent of total capital inflows into Latin America and the Caribbean. In East and South Asia, the relative contribution of the three components is about the same. In Sub-Saharan Africa, FDI and portfolio investment capital inflows (62 and 38 percent, respectively) are swamped by net public outflows due to debt repayment, exceeding inflows by almost 9 percent.

This look at international capital suggests that export-led growth is facilitated by domestic policy environments friendly to capital inflows. It also suggests that international trade is not an impersonal phenomenon between buyers and sellers unknown to each other, but rather consists of intra-firm transactions, or transactions among partner firms.⁹

Evolution of Textile and Apparel Regulation

As the success of new developing country textile and apparel exports took hold, textile and apparel interests in developed countries grew increasingly protectionist. Under the Multi-Fibre Arrangement (MFA), operative from 1974 to 1994, textile and clothing importers established bilateral import quotas in individual product categories whenever a trading partner's exports to its market became threatening to domestic market interests (Cline, 1990).

As of 1994, the United States had negotiated bilateral import restraint agreements with about forty countries, covering about two-thirds of U.S. textile and apparel imports. In the U.S. the Committee for the Implementation of Textile Agreements (CITA), an interagency working group with representatives from the Departments of Commerce, State, Labour, and Treasury, and the U.S. Trade Representative's office, and managed by Commerce's Office of Textiles and Apparel, supervises the implementation of textile bilateral agreements and proposes/ implements import restraints as necessary. The U.S. Government publishes the current status of all textile and apparel import quotas by country and product category and their fulfilment rate on the World Wide Web at www.customs.ustreas.gov/impoexpo/impoexpo.htm.

This system of regulated textile and apparel trade helped to spawn increased internationalisation of production of these very products. As quotas were used up in one exporting country, international clothing entrepreneurs frequently sought new production platforms in which to establish commercial relations with existing manufacturers or even establish new manufacturing operations all together. Exports could grow quota-risk free from a new platform for some time, before attracting the attention of importers. This "quota-hopping" behaviour of the international clothing industry, defined by its low fixed capital requirements as an internationally "footloose" industry, is one of the factors which enhanced the establishment of clothing operations in developing countries (Whalley, 1995).

An important competitive advantage for South Africa, along with the rest of Africa, is that the country has not been restricted under the MFA and thus has faced minimal restrictions in export markets. That advantage is a mixed blessing, however, given that foreign firms which relocate because of the MFA are more footloose than firms producing for the domestic market. The phase-out of quotas under the ATC by 2005 poses the threat that these highly mobile firms may leave South Africa once its quota-hopping haven advantage is outlived, thereby engendering a substantial degree of instability in the clothing industry in South Africa.

Pressures to remain cost competitive have led other industrial country-based clothing sectors, increasingly threatened by imports, to move important parts of their production offshore. Regional or bilateral trade agreements have been developed to allow for textiles, produced in capital-intensive industries in the industrial countries, to be processed into home textile and apparel products by labour-intensive assembly operations in developing countries which rim industrial country poles. These goods are then re-imported with duty preferences into the industrial countries for end consumption. "Outward processing traffic" (OPT), as this arrangement is known, takes place between Germany and Eastern European countries such as Poland and the Czech Republic. France sends its fabrics to Mediterranean clients such as Morocco and Tunisia for processing. In the United States, the North American Free Trade Agreement (NAFTA) and the Caribbean Basin Initiative (CBI) offer duty advantages to textile manufacturers who cut their fabric in the U.S. and ship

⁹ Dicken (1992) notes that intra-firm trade in both the United States and Japan accounts for more than 50 percent of total trade, and suggests that figure is even higher for the United Kingdom, cited in Dickerson (1995), p. 101.

it to Mexico and Caribbean nations for outward processing.¹⁰ These special concessions allow OPT operations preferential access to industrial country markets over MFA/ATC regulated imports. Similarly, within the Southern Africa Customs Union (SACU) and vis-à-vis certain Southern African Development Community (SADC) neighbours, South Africa allows imports of textiles and clothing at low rates of duty, encouraging “the NAFTA-isation” of these sectors, i.e. the spread of manufacturing activities into lower cost neighbouring countries such as Botswana, Mozambique, Lesotho, and Malawi, for re-import back into South Africa.

The result of more and more countries following the model of structural adjustment and export-led development has been a surge in international commerce. As a result, it became clear by the 1980s that some of the existing international trade rules no longer promoted efficient exchange. A mandate swelled to address necessary reforms, which culminated in the Uruguay Round (UR) of international trade negotiations. A wide variety of new trade topics, including agriculture, financial services, intellectual property, sanitary and phytosanitary regulations, and preshipment inspection, was put on the ambitious agenda for the UR. For the first time, developing countries took a seat at the table as negotiators in their own right. The global trading regime was also given a “traffic cop,” so to speak, with the creation of the WTO and the establishment within it of a dispute settlement mechanism for arbitrating inter-country trade disputes. Realising that textile and clothing trade relations had become exceedingly cumbersome and costly under the MFA, its elimination was also put on the agenda during the Uruguay Round. Developing countries insisted on liberalisation of trade for these important sectors of their growing economies. This was seen as a bargaining chip in return for developed countries’ demand for liberalisation of agricultural and services trade.

Today, the MFA is dead and international textile and apparel trade is managed by the Agreement on Textiles and Clothing (ATC), signed as part of GATT 1994. The ATC lays out a process of liberalisation of bilateral import quotas in four broad product groups (tops and yarns, fabrics, made-up textile products, and clothing) over a ten-year period, from 1994 through 2005. This obligation applies to four countries or country groupings which maintained restrictions under the MFA, namely Canada, the European Community (of twelve), Norway, and the United States. It also applies to fifty-five other countries which chose to use transitional import safeguard mechanisms. Negotiations were tough (ITCB, 1997) and the final agreement ended up with severe backloading of the quota phase-out of commitments. As of January 1, 1995 when the ATC became effective, countries integrated product categories (i.e. eliminate import restrictions applying to) equivalent to at least sixteen percent of their 1990 import volumes. It is stipulated in the ATC that goods must be included from each of four product categories listed above. On January 1, 1998, a further seventeen percent of 1990 import volumes were integrated. The third phase, integrating an additional eighteen percent of imports, is scheduled for January 1, 2002, and the remaining forty-nine percent of trade will be integrated at the expiration of the ATC on January 1, 2005. To date, the four participating countries have emphasized product categories at the lower end of the value added chain (especially tops and yarns, fabrics) (World Trade Organisation, 1997a), raising concerns among textile and clothing exporters that the ATC’s final objective of complete integration of textiles and apparel trade will not be accomplished.

Regional Trade

Peering into a crystal ball to a time when all countries have eliminated tariff and institutional barriers to efficient trade and macroeconomic instability from their profiles, and when textile and clothing trade is managed by tariffs, not quotas, access to preferential trade agreements may remain an important ingredient of the competitiveness game. Mexico and Canada, as well as the Caribbean basin countries, enjoy such an advantage vis-à-vis the U.S. market, for example. If the proliferation of regional trade agreements continues,

¹⁰ From Mexico, garments are imported duty free, while from the Caribbean, duty is assessed on the offshore value-added only. However, the U.S. outward processors and importers are lobbying heavily for “CBI parity,” to establish equal duty preferences for Mexico and Caribbean exporters. Although organizations such as the American Apparel Manufacturers’ Association lobbied heavily on its behalf, it was not passed by Congress in the Fall 1997 session.

it will be important for South Africa's trade negotiators to hone their skills and try to negotiate such preferential access for South African firms as well.

Given the importance of regional trade agreements and the preferential access to markets they can confer, one development of note with respect to the U.S. market has been the *Africa Growth and Opportunity Act* (AGOA), introduced in 1997 in the U.S. Congress and, as of 1999, still under consideration.

The *AGOA* would authorize Generalized System of Preferences (GSP) for Africa through 2007 and extend it to include products currently under statutory exclusion, such as textiles and apparel. Currently, trade-weighted tariffs of 8.7 percent and 17.6 percent are applied on African textiles and apparel imports into the U.S, respectively. Thus, this *AGOA* provision to eliminate duties offers an additional 17 percent (trade-weighted average for both textile and apparel) price advantage, relative to present levels of import prices inclusive of duties. In addition to its specific promotion of textiles and apparel exports to the U.S., the bill calls for other measures to strengthen and expand the private sector in Sub-Saharan Africa and encourage increased trade and investment between the United States and Sub-Saharan Africa. It also supports the negotiation of a free trade area between the U.S. and Sub-Saharan Africa.

A U.S. Government study estimates that U.S. production would barely be affected by the bill, and that the impact on U.S. jobs and the U.S. budget would be slight (ITC, 1997). U.S. manufacturers of textiles and apparel represent the main opposition to the *AGOA*. Their concerns include the potential rise in legitimate imports from SSA and the negative effect of this on U.S. production and thus employment in the sectors. Their chief concern, however, is that removal of trade barriers on African exports to the U.S. will result in an increase in illegal transshipments of textiles and apparel from Asian countries which have exhausted their own export quotas to the U.S. (U.S. Department of the Treasury, 1998) Before ATC quotas are eliminated in 2005, U.S. industries are eager to avoid additional competition with Asian goods in the U.S. market. Since transshipment has proven difficult to control and given the limited capacity of African countries to increase rapidly their production and export capacity, U.S. manufacturers argue that *AGOA* gains would not be captured by the intended beneficiary (Sub-Saharan Africa), but rather by a third party (Asia).

It is argued elsewhere (Salinger, Barry, and Pandolfi, 1997) that the U.S. Congress could enhance likelihood of passage of the *Africa Growth and Opportunity Act* by requiring third party verification by internationally reputable pre-shipment inspection firms of country of origin prior to shipment of textiles and apparel from Africa to the U.S. Both export visa and independent country of origin verification would be required for entry into U.S. ports. Strengthening this requirement should help to appease *AGOA* opponents in the industry and insure that African countries alone benefit from the *Africa Growth and Opportunity Act*.

Globalisation and Competitiveness

The rising importance of regional trade blocs notwithstanding, if all goes according to plan, the shape and dynamics of international textile and apparel production and trade will have changed significantly by 2005. Countries and individual textile and apparel industries are anticipating, preparing for, and beginning to adjust to the anticipated market and technological changes being felt all over the globe. These changes hold important implications for the competitiveness of firms everywhere and for the management and policy strategies pursued by firms and the governments that regulate their markets.

The first effect of increased globalisation and liberalisation of international trade is a reduced emphasis on cost as the sole determinant of competitiveness. Whereas neo-classical economists previously focused on relative costs of production as the key factor influencing "comparative advantage," today other factors are recognised as being just as vital (Porter, 1990). This becomes increasingly true, the more countries continue to liberalise their economies and squeeze out the costs of inefficiencies.

For starters, when costs of production are defined as the costs of assembly and delivery to an export point, these costs usually represent a minor portion of total cost. The largest component of total cost today is the value of all the services bundled into the final cost of goods. Today's vendors of differentiated consumer

products must also expend for product design, rapid turnaround of designs, the overhead costs associated with developing international market linkages, merchandising, service, inventory management, lead times, transport and trade, and quality control in order to nuance their products in the eyes of the purchaser.

More importantly consumer preferences are changing. Consumers in developed and newly industrialising countries no longer demand standardised products, but rather products that will distinguish their wearer from the masses around him or her. Thus, textile mills which provide specially treated fabrics offering unique looks or wear characteristics and apparel companies which can provide sophisticated, quality products will more successfully appeal to end consumers and achieve higher returns than those which supply standard cotton knits and T-shirts. Moreover, increasingly sophisticated consumers are demanding increased variety of product choice. This is leading to shorter product seasons, more rapid product cycle turnover, and smaller lot sizes. The competitive apparel firm must be responsive to these parameters as well.

As a consequence of shorter product cycles and more rapid turnaround, retailers are assuming a much more pivotal role in the design and merchandising process in the U.S. Private labels designed by retailers are beginning to take market share from established brand labels in many markets. Assembly of private label clothing is much more heavily dependent on imported garments in the U.S., as retailers seek the lowest cost platforms to contract for the manufacture of their wares. While this trend bodes well for foreign apparel suppliers, it brings increased expectations in terms of inventory management, order control, and delivery of goods. Foreign suppliers need to adopt more sophisticated, computerised systems which can follow inputs, cut-ups, and final goods through every stage of the apparel export process. Firms which can manage this pipeline effectively, and communicate regularly with their clients at every stage of the process, will out-compete those that cannot.¹¹

Another aspect of service is quality. Increasingly, consumers expect fabrics whose colours do not run and clothes whose seams are finished and whose fit is right. One strategy being pursued by large apparel manufacturers in the U.S. today to counter substandard product quality is automation. By computerising cutting and particularly tricky assembly operations, standard sizing and enhanced end product quality can better be assured. The U.S. industry is also actively pursuing demand-activated manufacturing technologies, i.e. technologies which will allow manufacturers to more accurately and more rapidly respond to tailor-made style and size orders (Sheridan, 1994). The use of whole-body scanners by manufacturers and retailers will allow customers to order clothing cut and assembled according to a larger array of computerised patterns so that the final product fits individual body types correctly. The use of snapshot fashion ordering systems and digital fabric printing will allow mass customisation to be realised, i.e. the manufacture on a large scale of specialty products tailored to individual consumer style and colour preferences (Pine, 1993; Anderson et al., 1997). Research and development of these new technologies in the U.S. by institutions such as TC² (Textile/Clothing Technology Corporation¹²) is funded by private-public partnerships incorporating fibre producers, textile companies, labour unions, apparel manufacturers, and the U.S. Department of Commerce. Another research and development focus being conducted in private-public partnership is with regard to improving efficiency of sourcing, inventory, and warehousing operations, and reducing pipeline bottlenecks and improving flow from fibre to consumer, under the aegis of the DAMA project.¹³

Another important element of the international competitiveness equation today is macroeconomic stability. With increasing numbers of countries demonstrating that macroeconomic stability and transparency contributes to export expansion and growth, countries cannot afford to be macroeconomic laggards.

¹¹ A 1985 study, quoted in Sheridan (1994), estimated that the pipeline from fiber manufacture to garment sale was as long as 66 weeks, of which 55 covered materials sitting in inventory at various stages. Shortening this pipeline is crucial to improved inventory management.

¹² For information, see www.tc2.com.

¹³ See tc2.sandia.gov/proj2.html.

Traditional hypotheses of the determinants of competitiveness have focused on such factors as larger firm sizes (to take advantage of economies of scale) and high capacity use throughout the year (to produce large product lines with long seasons). In addition, it has been assumed that increased firm concentration in the industry and a more highly integrated domestic fibre-textile-clothing pipeline are key to competing against imports.

However, observation of the textile and apparel industry trends at the international level raises a number of important questions for South African firms. It may be more important for South African firms to pursue competitiveness-enhancing strategies such as:

- management style which encourages shop floor teams to organise production and management/labour teams to brainstorm about product assembly, new staff training, marketing, and shop floor organisation;
- smaller production firm sizes, with increased product specialisation (i.e. reduced product diversity), linked via a design/ marketing central to handle orders with international buyers;
- a decreased pipeline mentality between textiles and clothing, in order to permit exports/imports at each stage of the industrial chain;
- high capacity use throughout the year due to production of smaller product lines with more rapidly entering/exiting seasons;
- increased product flexibility, i.e. specialise in what you do best, but be able to spot (even make) design trends and respond to them quickly;
- identification of product design and marketing strategies around niche products, such as clothing and household textile products along Afro-centric and wildlife/nature themes;
- improved CAD/CAM/computer-aided marketing/computer-aided business planning;
- acquisition of other new design, manufacturing, inventory management, etc. technologies;
- export learning, i.e. *inter alia* learning about timing, packaging, shipping procedures, paperwork, “quality standards”;
- other patterns of linkage to or integration with the international market, via joint ventures, product licensing arrangements, etc.

These will be explored in the context of current behaviour of South Africa’s textile and clothing firms, presented in the remaining chapters of this report.

This overview of international trends has highlighted how changes in comparative advantage have in turn brought about changes in the international regulation of textiles and clothing trade. This in turn is spawning a wave of liberalisation which leads to changes in the very paradigm of comparative advantage itself. The chapter has suggested that the new competitiveness paradigm does not replace cost competitiveness, but rather views cost as one of several criteria against which countries will challenge each other in the market arena. These themes will be returned to at the end of this report, after turning to a detailed analysis of the textile and clothing sectors in South Africa and a focus on Western Cape and KwaZulu-Natal firms.

IV. Policy Environment and Economics of South Africa's Textile and Clothing Sectors

Policy Environment

In analysing the clothing and textile sectors in South Africa, it is important to understand the policy environment within which these sectors operate. Labour market interventions, together with trade and investment policies, dominate this policy environment. While there are some state policies specific to the clothing and textile sectors, most of these are generally applicable to all manufacturing sub-sectors in the economy. Much of what follows is fairly generic, therefore, describing the policies affecting most manufacturing sub-sectors in the economy.

Labour Market Policy

All workers in the economy, including those in clothing and textiles, are covered by the following primary forms of labour legislation:

- Workmen's Compensation Act, 1941
- Unemployment Insurance Act, 1966
- The Labour Relations Act (LRA), No. 66 of 1995
- Basic Conditions of Employment Act (BCEA), No. 75 of 1997

The regulation of the formal labour market is dealt with in South Africa by Industrial Councils and the Wage Board. The former applies to all unionised workers, while the latter is an institution dealing with non-unionised employees. Wages and conditions of unionised workers are formally negotiated by the South African Textile and Clothing Workers' Union and management at a national level.¹⁴

The above body of legislation deals with issues relating to wages, strike activity, bargaining councils, short-term unemployment, and floor conditions for all workers. However, there is significant tension implied by the body of labour law in South Africa. On the one hand, the LRA of 1995 is driven by a desire to loosen labour regulatory conditions faced by industry. It allows substantial room for negotiation between management and workers and thus emphasises regulated flexibility in the labour market.

On the other hand, the BCEA is driven by a desire to protect the basic rights of workers and is thus highly regulatory. It proscribes strict guidelines for employers, which industry argues will likely result in higher employment costs and thus possibly a fall in employment levels. This could have particularly negative repercussions for labour-intensive industries such as the clothing industry. For example, one of the stipulations in the BCEA is a compulsory paid maternity leave (three months) for all employees. For the clothing industry, in which the workforce is 90 percent female, this could increase labour costs substantially.

The clothing industry is one of the few manufacturing industries where the wage determinations of the Wage Board are still in force. This is probably a function of the tendency toward low wages in this industry, relative to other manufacturing sub-sectors. Most of the other significant wage determinations occur in those non-manufacturing sub-sectors with low average wages.

The key labour market policy instrument for clothing and knitting industry workers not covered by Industrial Council agreements is the Wage Determination Schedule 471 (WD471). From the 1970s to the mid-1990s, the Wage Board had become virtually ineffective and inactive. Very few determinations were passed, new

¹⁴ The regulation of informal sector workers is subsumed under the standard set of laws governing formal sector employees. No specific legislation exists as yet, for the informally employed, although special provisions are sometimes made for this group in the legislation.

areas were not covered, and the wage levels proposed were often lower than actually paid in any given industry. This was no different in the clothing industry, where numerous new clothing firms paying low wages were not covered by the WD471.

Regulation of non-unionised workers has been revitalised with the appointment of a new Wage Board. One of its first assignments was an investigation into the applicability of the WD471 to clothing and knitting firms in areas, many of which were not covered by WD471. This was the result of the previous government's Regional Industrial Development Programme (RIDP) launched in 1992 and the follow-up initiative, the Simplified Regional Industrial Development Programme (SRIDP). Both programmes were attempts at decentralised spatial development, where the state provided incentives for domestic and foreign firms to relocate to outlying areas in the country. These were usually rural or peri-urban areas, populated primarily by very poor, black workers with very few job opportunities. In this environment, a substantial number of clothing firms, owned primarily by Taiwanese manufacturers, began to operate in decentralised areas such as Dimbaza, Isithebe, Botshabelo and Phuthaditjhaba, encouraged by a package of decentralisation incentives offered by the national Government at the time.

The Wage Board, after its investigation of these areas, released its report in 1997 (Horner, 1997). It has decided on the following:

- WD471 should be extended to all previously uncovered areas (the one exception was Phuthaditjhaba, where it was felt that firms should be allowed to have a phasing-in period of the new determination).
- The use of piece wages, already banned by the Industrial Councils in unionised shops, should be abolished in these areas, and there should be a move back to hourly wage rates.
- The exemption to the small- and medium-sized enterprises clause, which allowed these firms to avoid the regulatory net of the WD471, should be cancelled.¹⁵

The implications of the findings of this investigation are important. They suggest that the Wage Board and thus the Department of Labour have taken a tough stance on protecting the rights of workers, perhaps at the risk of employment loss. The banning of the use of piece wages is a move away from possible abuse by employers, but it may also be a reason for employers to move elsewhere (such as into neighbouring countries; see above) where they can monitor productivity through piece wages. The cancellation of the exemptions resolution, viewed as a policy promoting some form of labour market flexibility, indicates the Wage Board's disagreement with the tendency towards greater labour market flexibility. This interventionist position of the Board raises the possibility again that many new or current small firms will relocate across the South African border. While the effects of the Wage Board's decisions are not yet evident, it is feared that there may be significant job losses, particularly in rural fringe areas where footloose Taiwanese-run firms have operated.

Human Resource Development and Training

As for more general human resource development and labour training programmes, the DTI is involved with the Department of Labour to develop an appropriate industry framework for future training programmes. A green paper is expected soon on a human resource development strategy.

Trade Policy

The table below presents the duty structure on the different products applicable to the textile industry and the tariff reduction programme to which South Africa is committed. The structure exhibits the escalating quality typical of many tariff structures throughout the world, i.e. offers highest protection for products with the highest degree of processing. Polyesters, not produced in South Africa today, receive the lowest

¹⁵ In case of the latter, small and new employers would be affected by, and subject to, the provisions of WD471. Exemptions were to be requested in writing to the Wage Board.

protection. The product with the largest current duty is clothing at 72 percent, followed by household textiles (46 percent), fabrics (36 percent), yarns (26 percent), and polyester (19 percent). By the year 2002, the relative values of the duties will remain the same, although at lower rates.

Table 6: Clothing and Textile Ad Valorem Tariff Reduction Programme

Product	Current	1.Sept.98	1.Sept.99	1.Sept.00	1.Sept.01	1.Sept.02
Clothing	72	66	60	54	47	40
Household Textiles	46	43	40	37	34	30
Fabric	36	33	30	27	24	22
Yarns	26	24	22	20	18	15
Polyester	19	17	15	13	11	7.5

In addition, the current minimum specific duties were reduced by 10 percent per annum over 4 years from September 1995 (rounded off to the nearest cent), and are to be abolished in September 1999. The current maximum duties will remain unchanged, until September 1999, when they will be abolished. All rebates, except that of Chapter 470.03,¹⁶ will be phased out over 8 years, barring those that have fallen into disuse, which have been withdrawn.

The clothing and textile industries are represented in the Department of Trade and Industry (DTI) in the Directorate of Clothing, Textiles and Footwear, within the Chief Directorate of Industrial Promotion. This directorate represents all the government's industrial and trade policy thinking on the clothing and textile sectors. The first part of this section concentrates on export instruments used by the DTI for all manufacturing sectors. Hence the discussion is general, and applicable to any number of manufacturing industries. The second component of this section defines the specific range of export promotion strategies of the clothing and textile industries available from the DTI.

General Export Instruments. There are a wide variety of direct export promotional instruments available to potential exporters in South Africa. In addition, under the Export Marketing and Investment Assistance (EMIA) programme, the DTI offers financial support to firms and export councils using these instruments.

An **Export Council** can be established in accordance with "Industry Specific Assistance" provided by the DTI under the EMIA. The main objective of the Export Council is to instil a sustainable export culture within the industry. The Export Council is expected to:

- become the spokesperson for its members regarding export matters, i.e. promote closer interaction between government and the sector,
- provide a platform for the creation of a export culture by developing new markets and increasing exports,
- identify key export capabilities, competitive and potentially competitive products, and foreign market opportunities on behalf of its industry and to determine key priorities in the export development thereof. These sector capabilities, products, and priorities will be identified through a process of dialogue and research between the industry and the relevant Industrial Promotion Sector Directorate in the DTI. The priorities identified could include investment opportunities to establish new production facilities, the transfer of technology, and/or joint ventures to modernise or expand existing facilities with the aim to increase the international competitiveness of a particular sector;
- utilise specific export, investment and technology transfer instruments available through the assistance and structures provided by the DTI,

¹⁶ Section 470.03 is a duty-exemption used by exporters who need to import raw materials, similar to a bonded warehousing-like concept. For example, firms may use fabric imported from overseas and process it locally for re-export.

- promote financial assistance measures under the new EMIA scheme to enable members to become export focused through the instruments provided,
- encourage members to contribute to the development of the industry as a whole (specifically with regard to training in exports, small/micro/medium-sized enterprises (SMME's), job creation and re-investment from exports) and induce industry collaboration, and
- implement an export development programme ensuring the long term survival of the council.

From time to time DTI foreign representatives visit South Africa. During these visits industry specific **seminars** are conducted at various centres around South Africa. Role players from industry are invited to attend the seminars from representatives who have indicated their country of accreditation as a potential market to which South African dairy products can be exported. In addition, seminars held abroad can be a very effective way to inform foreign investors and/or potential importers of the opportunities and products available in South Africa. This instrument has already been effectively used by the DTI.

DTI's Economic Representatives in countries identified as potential export markets for a South African industry can be requested to identify 1-5 potential foreign buyers or investors per country who could be invited to visit South Africa on a **trade mission** to explore trade, joint venture, and investment opportunities. It is envisaged that two or three official outward selling trade missions will take place per annum to identify target markets. Outward trade missions include participants of various industrial sectors and are considered effective in providing first hand experience to prospective exporters and to introduce them to potential trading partners in the countries visited. In addition, industry-specific trade missions can be arranged.

Participation in international **exhibitions** is a very effective platform to

- promote a specific South African exporting sector on a national level,
- conduct market research on behalf of the sector,
- to identify competitors and potential buyers, and
- to promote and sell products.

Specialised shows can also provide a “one stop opportunity” to foreign buyers to meet with South African manufacturers and to enable foreign companies to assess the opportunities for joint ventures and investment in South Africa. South African Economic Representatives abroad will keep the Sector Sub-Directorate informed of appropriate specialised exhibitions to be held in the countries identified as priority markets. This information will be made available to the industry to encourage interested role players to participate as individuals or, if appropriate, under a National pavilion. In an effort to co-ordinate the activities planned to promote a particular sector at specialised exhibitions abroad, it is important that the major players in the industry be approached by the appropriate ETP: Sector Sub-Directorate for their comments on a particular show before the EMIA Sub-directorate decides on approving national participation in a particular specialised exhibition abroad.

The EMIA scheme, referred to above, offers the following financial support:

- *Establishment of an Export Council.* A matching grant of up to a maximum of R400 000 in the first year and R200 000 in the second year of operation in the event of the industry establishing an export council. The DTI will cover the cost of salaries and wages, office and telephone rent, leasing of office equipment and furniture, and training of SMME's in export. The council should be self funding after two years of operation. The accomplishment of this goal amongst others must be contained in the three year business plan provided to the DTI for discussion and approval in accordance to the requirements set out for the establishment of this council.
- *Participation in Foreign Trade Exhibitions.* As per ad hoc exhibition scheme.

- *Participation in Trade Exhibitions in South Africa.* A matching grant of 50 percent of the cost of space rental and construction of a stand is available, up to a maximum of R 7 500.
- *Outward Selling and Inwards Buying Missions.* An annual programme needs to be approved with the DTI and finalised in terms of conditions applying to Outward Selling and Inwards Buying Missions.
- *Generic Advertising Campaign.* Assistance up to R 25 000 per year, on a matching grant basis, will be considered for advertising in selected overseas markets.
- *Export Brochures, Videos, and Handbook.* Assist on a matching grant basis with the cost of design, printing and publishing of export brochures up to R 3 000 and contribute towards the cost of production of an export video up to a maximum of R 10 000 per year. The DTI will also contribute towards the cost of publishing an “Exporters Handbook” for the particular industry on a matching grant basis up to a maximum of R 20 000 per year.
- *Export Marketing Consultant.* Assistance is available to undertake overseas primary export market research by a local consultant on the behalf of an association and its members, on a matching grant basis of up to a maximum of R 25 000 per visit.

Specific DTI Clothing and Textile Sector Export Instruments.¹⁷ No coherent, industry-sanctioned, export promotion strategy exists within the DTI. However, a draft business and export strategy was being circulated within the sector and the DTI’s Industry Promotion chief directorate. What follows are the mission, objectives and action plan of the Sub-Directorate.

Mission. The mission of this Sub Directorate is to become a professional advisory office in its field which would effectively underscore the GEAR objectives by assisting the relevant industries in developing a lasting and internationally competitive export culture that would translate into :

- an increase in existing and new exports of especially high value-added products,
- a healthy growth in industry and job creation, and
- SMME development and export training.

Objectives. Striving towards this goal, assistance will be given to especially the textile, clothing and footwear industries in reaching the following key objectives:

- Creating a sustainable export culture in the industries through:
 - ◆ developing a focused export development programme and global marketing strategy,
 - ◆ establishing a firm commitment and dedication to exports amongst as wide a number of members as possible utilising all synergies of the industries’ Cupertino,
 - ◆ identifying suitable capabilities within the sectors for export development,
 - ◆ establishing a “ name” for South African clothing and textiles internationally.
- assisting members, and particularly, SMMEs to systematically and professionally, i.e. through market research, target and exploit foreign markets so identified for export penetration; and
- utilising the expertise of reputable market consultants where feasible and appropriate in this market identification process.

¹⁷ This section represents the DTI’s position of the relevant export instruments for the clothing and textiles industries.

Action Plan. The Action Plan being fine-tuned with major stakeholders follows:

1. *Draw up focused industry export profiles that would be useful in export development management to achieve key objectives and, inter alia, would indicate:*
 - Export status of the industries,
 - Key role players that could champion an effective and lasting export drive,
 - Trade flow analysis and identification of key and potential export products,
 - Export development strategy and operational plan of action, locally and, as a second phase, also in foreign markets, and
 - Strategic export objectives and action plan to be pursued, which will be fine-tuned with the Industrial Promotion Directorate and with the industries.
2. *Investigate foreign markets with the best potential for certain product groups*
 - Identify and target the most lucrative markets with selected product groups,
 - Strategic export objectives in respect of foreign markets to be fine-tuned in co-operation with the industries, and
 - Estimate of expected results to be achieved.
3. *Implement an operational export development and global marketing strategy*
 - Draw up such a programme to be discussed and fine-tuned with the industries and the DTI industry promotion directorate to finalise a coherent 1998 export development strategy and business plan,
 - Develop export marketing strategies for selected main product groups,
 - Utilise selected export marketing instruments to support the realisation of the objectives pursued,
 - Assist in monitoring international developments and trends that would influence exports,
 - Develop sectors through which niche and other opportunities could possibly be exploited,
 - Establish an effective statistical and exporters data base and small export reference library for the sectors,
 - Identify and assist individual potential exporters to break into new markets by advising them on EMIA assistance, conducting primary market and other research, and
 - Strategy and briefing sessions with visiting foreign economic representatives in those markets targeted for export development in order to assist them in focusing effectively on export and niche opportunities which they should pursue in their markets.
4. *Establish a South African Clothing and Textile Export Council (SACTEC)*
 - Draw up a business template to assist the sector in establishing a Council that would in a meaningful way drive the sector towards export achievements,
 - Address as many members of both CLOFED and TEXTFED in order to get the export development programme and the process of establishing a South African Clothing and Textiles Export Council effectively introduced and supported within the whole of both industries,
 - Conduct regional export workshops/seminars together with the industry directorate to get the whole clothing and textile sector effectively committed to an export drive, and
 - Establish a liaison with product group role players on export issues and marketing challenges that could be addressed through the Council and keep the export drive momentum in pace.
5. *Apply diversified marketing support measures to underscore the objectives pursued*
 - Continuous liaison with the industries to identify exportable products and assist in market penetration.
 - Organise outward trading missions for the sectors to the major European and USA retail centres during which the export ability of the South African industries will be presented through workshops and seminars to international decision makers and buyer groups,

- Identify and evaluate the most appropriate international exhibitions for the sectors and organise sector participation with possible parallel seminars through which the textile and clothing export capabilities and growth could be further underscored,
- Assist companies who wish to exhibit individually at international exhibitions, with market information,
- Provide articles in leading sector trade journals, both locally and abroad, to draw attention to the export drive and to assist in creating and export culture,
- Organise a broad inward buying mission that could coincide with possibly initiating a leading local textile and clothing exhibition,
- Assist the textile industry in identifying and utilising foreign transfer of technology and assistance programmes that would be conducive to productivity improvement,
- Assist in obtaining entry to lucrative UN and foreign government procurement tenders, and provide feedback to the DTI's Export Help Desk data base in order for them to provide an effective one-stop service for initial trade enquiries, especially from SMME's.

Financial Assistance Schemes. Some of the financial incentives which have been used to promote exports are the General Export Incentive Scheme (GEIS), now discontinued, and the Duty Credit Certificate (DCC) scheme.

The GEIS was originally intended to boost exports in manufacturing and other industries through the provision of export subsidies at a firm level. However, it was phased out gradually over the last two years, and today does not exist. Reasons for the phase out are four-fold. Firstly, GEIS was supposed to reduce the anti-export bias inherent in the economy's trade regime. However, this anti-export bias has been nullified by the process of tariff liberalisation and the number of export-promoting supply-side measures available from the DTI. Secondly, GEIS contradicted the requirements of the GATT 1994 agreement, to which South Africa is a signatory. There were also concerns within DTI that GEIS had not achieved its goals, and had been concentrated in a few sectors that effectively abused the scheme. Alleged abuse by firms involved companies importing goods and adding a large mark-up to claim local content under GEIS, over-invoicing of export volumes and values, and re-importing the products in a different form with low prices. Fiscal conservatism was the final reason for scrapping GEIS, as DTI's program budget was reduced.

The DCC scheme seeks specifically to boost the export performance of the textile and clothing industries. Termination of the DCC scheme, originally scheduled for March 1998, has been postponed until March 2000. The DCC is a temporary, non-transferable, and non-negotiable credit note to be redeemed on imports, available to exporters of certain defined locally produced products. In this way, firms are given an incentive to export through earning credits on their input import expenditure. The value of the certificates is calculated according to the value of exports, as indicated in the table below.

Table 7: Value of Duty Credit Certificates

Exported Product	Value of DCC as % of Export Sales (FOB value)
Clothing & clothing accessories	30
Household Textiles	20
Fabrics and other textiles	15
Yarn	10

It is clear that the DCC is positively correlated with the level of value-added in the product chain. Hence, the most developed textile category, garments, is given the highest return in term of a credit note. The lowest value-added product, yarn, receives the lowest credit note, at 10 percent of export sales.

The DCC also has a link to monitoring productivity levels in the industry. Hence the granting of DCCs are subject to each firm achieving the targets set out in the Productivity Performance Monitoring Scheme (PPMS) implemented and administered by the National Productivity Institute (NPI). Firms were involved with the NPI in setting these targets, however, the productivity targets as set out in the agreement are rather vague. In addition, a firm may demonstrate to the NPI and DTI that the productivity levels actually achieved were acceptable. If approved, the DCC may still be given to the firm. Hence the productivity-linked access to the credit is quite flexible, with firms seemingly able to avoid any major penalties in terms of the DCC. Built in to the DCC is a training expenditure requirement. The agreement states that firms receiving the DCC must spend 4 percent of their wage bill on training. The wage bill includes all normal time, fringe benefits, levies, and overtime. Inability to fulfil this training requirement results in withdrawal of the DCC.

The DTI has earmarked certain funds for assistance to small and medium enterprises (SME), i.e. firms with less than twenty workers and a total asset value of no more than R5 million. The Short-Term Export Finance Guarantee Facility provides finance (between R50 000 and R1 million) to SME firms in the form of pre- and post-shipment export finance guarantees. These guarantees are issued by the Credit Guarantee Insurance Corporation (CGIC), and are underwritten by the DTI. This scheme reduces export risk for both firms and banks, as the former can export knowing that there is financial cover and the latter has a written guarantee, should the lender default.

In addition, the DTI and other government institutions have a number of export promotion measures for any firm in the economy. Some of these are:

- *Life Scheme*: Run by the Industrial Development Corporation (IDC), this scheme provides low interest rate finance for the promotion of exports. Firms with assets over R1 million can apply to the fund, if their export volume is 30 percent of total production. Linked to this scheme is a low-interest programme for the purchase of machinery and capital equipment to be used in the production of export goods.
- *Competitiveness Fund*: This programme, run by the DTI, is aimed at supporting marketing and technical expertise to all private firms, irrespective of size, on a first-come first-serve basis. There is an emphasis on promoting those firms that are already exporters.
- *World Player Scheme*: The DTI's aim in this program is to finance the acquisition and modernisation of fixed assets in the clothing, textile and footwear industries, as well as the motor vehicle industry. The intention is clearly to support those industries under threat from lower tariff barriers, through improving the efficiency of the production process.
- *South African National Accreditation Scheme (SANAS)*: This organisation, set up by the DTI, allows for new products to be exported, without undergoing repeated testing and certification each time they are exported. This improves efficiency in exporting.

Investment and Innovation Policy

The DTI provides a number of supply-side measures targeted at promoting investment levels and improving skill levels in different manufacturing sectors of the economy.

The DTI proposed a number of investment promotion measures, agreeable to the Katz Commission's recommendations. Implicit in these new schemes was that the Regional Industrial Development Programme (RIDP) would be abolished. The measures include a tax holiday programme for new pre-approved projects initiated during a three year-period, beginning in the last quarter of 1996. Some of the eligibility criteria for access to the tax breaks include the location of the project, its job creation potential, and whether it fits into the DTI's notion of a priority industry. In this respect, the clothing industry, for example, would be well suited, given its labour-intensive technology and ability to set up a firm quite easily in most areas. An

accelerated depreciation scheme is also in place in order to allow firms to write off their machinery sooner, and hence pay less tax on their capital equipment. The programme is due to run until September 1999.

The other major policy front of the DTI is its wide-ranging support mechanisms for small, micro, and medium-sized enterprises (SMMEs). Legislation has been approved to set up a number of institutions that would provide financial and non-financial assistance for SMMEs, including the National Small Business Council (NSBC), Provincial Small Business Council (PSBC), and the Ntsika Enterprise Promotion Agency (NEPA). Support for SMMEs also includes support for exports (pre- and post-shipment funding) and the hiring of consultants to improve performance. These measures of the DTI are in addition to the above trade policy measures aimed at this sector.

Four governmental initiatives relate to technological innovations, namely the Support Programme for Industrial Innovation (SPII), the Technology and Human Resources for Industry Programme (THRIP), and two programmes under the guidance of the Department of Arts, Culture, and Technology.

The SPII, in existence since April 1993, is part of a DTI strategy for the promotion of technology development in South Africa's manufacturing industry. It is administered by the IDC. It is aimed at all private sector enterprises which have the ability to develop and commercialise their product. The SPII provides competitive grants equal to 50 percent of the actual direct cost incurred in the pre-competitive development activity. A recent evaluation of the SPII found that the administrative costs required to apply for and receive support from the SPII was rather large in comparison to the size of the grants, this being especially true for small enterprises. Hence, it was suggested that greater flexibility should be given to exceed the ceilings where appropriate. Additional need for services beyond the scope of the SPII programme, include market research, feasibility studies, patent searches, patenting or brokering of alliances, was also identified. It was recommended that the programme be promoted more actively.

The THRIP is designed to enhance the competitiveness of South African industry by supporting scientific research, technology development, and technology diffusion activities and through the development of skilled people. It also encourages long-term strategic partnerships between industry, research, educational institutions, and government. THRIP is jointly managed by the Foundation for Research Development (FRD) and the DTI. Funds are available to finance research efforts of the academic partners provided that such research projects involve the training of students.

Two programmes under the guidance of the Department of Arts, Culture, Science, and Technology are the National Research and Technology Foresight Programme and the Foresight Project. The former looks at the long term direction regarding innovation and technology and at the identification of research projects and market opportunities with an eye to anticipating and influencing future technological developments and trends, identifying niche markets, and stimulating innovative capabilities within the country. The Foresight Project involves government, industry, labour, NGOs, and academia in deciding on future priorities in twelve sectors: agriculture, biodiversity, business and financial services, environment, energy, health, information and communication technologies, manufacturing, mining and metallurgy, safety and security, tourism, and youth.

Policy Conclusions

The above has shown that perhaps the strongest thrust in policies impacting on the clothing and textile industries in South Africa are those designed to promote the growth and volume of exports. The most prominent policy institution is the DTI, which administers most of these supply-side programmes. In addition, the presence and success of investment and technology-upgrading policies is a crucial complement to the export promotion strategies. Ultimately, any successful export growth path for the clothing and textile industries will have to be built on a set of effective and complementary state policies.

An Empirical Overview of the Textile and Clothing Sectors¹⁸

Introduction

The textile and clothing (TC) industries have been integral to the development of the manufacturing industry in South Africa, and both remain important to all aspects of domestic economic activity, ranging from employment creation to foreign exchange generation. The industries though, face significant challenges, largely as a result of South Africa adopting a policy path of export-oriented industrialisation, as described above. Domestic firms are consequently under pressure in order to improve efficiency and product quality levels to ensure long-term sustainability. These new demands in the manufacturing industry, within the constrained environment of trade liberalisation, are no less acute in the textile and clothing sectors. This chapter provides an empirical background to the challenges facing the clothing and textiles sectors.

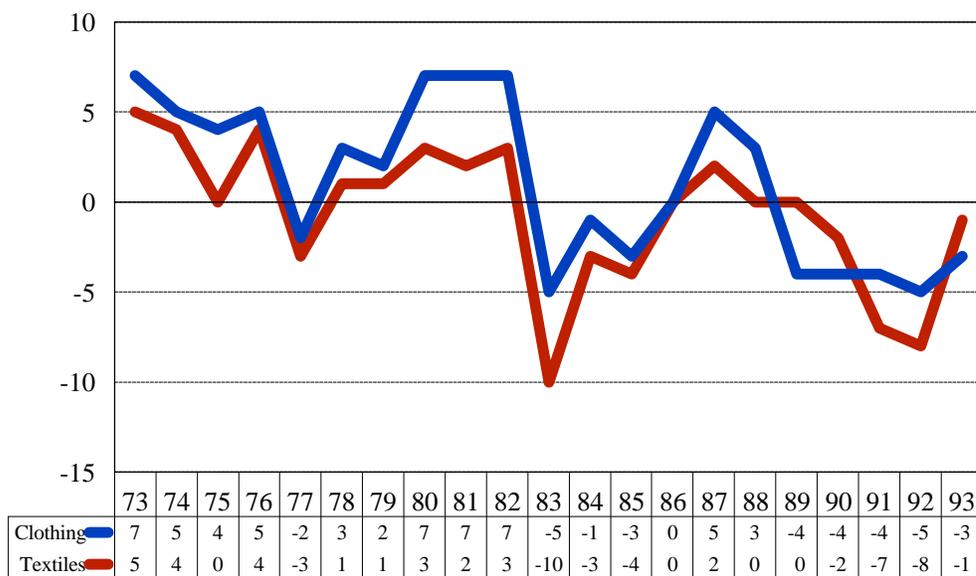
Two major aspects of the TC sector, namely factor markets and trade patterns, are dealt with here. The former analyses employment and wage patterns in the industries and also examines investment expenditure movements in the industry. Export shares and trends are covered in detail in the second section. This includes an analysis of the direction of trade statistics and estimates of export supply elasticities for prices and income.

Employment and Wages

An analysis of TC employment figures for the period 1973-93 reveals a steady decline in the rate of growth of employment in both sectors. As Figure 3 below illustrates, employment in the first five years of the period grew by an average of 3.8 percent and 2 percent for clothing and textiles, respectively. The corresponding values for the last five years of the sample were -4 percent and -3.6 percent. Hence, the new demands of import liberalisation, greater foreign competition, and the limits of an inefficient production structure resulted in significant job losses in the industries.

¹⁸ Data is extracted primarily from the Industrial Development Corporation's Manufacturing Sectoral Data Series. The series is presented at the sector and subsector levels, according to SIC codes. It covers the period 1972-1993. The presented data, however, have all been calculated independently by the authors, using the raw data from the IDC.

Figure 3: Total Employment in Clothing and Textiles, % change (IDC, 1994)



During the eleven-year period from 1983 to 1993, employment growth was negative or zero for all but two years. An interesting aspect of the graph is the obvious strong parallel in employment changes in the two sectors. The simple correlation coefficient is 0.86. Testing correlation with lags is of course not possible with annual data. While the test does not reflect causality, it suggests that a relatively strong association exists between textile and clothing employment. To test for causality, the Granger Causality Test can be used. Using monthly employment data drawn from the CSS's monthly employment abstracts, the causality test was undertaken.

Table 8: Granger Causality Test for Employment in Textiles and Clothing

Null Hypothesis	Lags	Critical Value	F-Statistic
Textiles does not Granger cause Clothing	1	1.53	0.23
Clothing does not Granger cause Textiles	1	1.53	5.08
Textiles does not Granger cause Clothing	2	1.53	2.35
Clothing does not Granger cause Textiles	2	1.53	3.26

As the table above shows, when a single lag is introduced, the null that textile employment does not cause clothing employment changes cannot be rejected. However, the hypothesis that clothing employment does not cause textile employment changes is rejected at the 10 percent significance level, with an F-statistic of 5.08. That alterations in employment levels in the clothing industry will have a second round effect on employment in the textiles industry makes intuitive sense. Oddly enough, both causality tests are significant when using a two-period lag. In other words, in this case it is shown that clothing employment causes textile employment changes and vice versa. The one possible explanation is that there are feedback effects from the

previous period that are being picked up, affecting the results. It may also suggest that adjustment in textile employment is instantaneous. Qualitative evidence of firms' ownership structures spanning the entire pipeline may provide justification for this result. Hence, a firm having significant equity in the clothing production, retail, and textile segments of the pipeline may alter employment levels proportionally in all three segments.

The correlation results and the causality test suggest a strong association between employment flows in textiles and clothing. Not only is this a function of the production pipeline where there are strong interlinkages between the two industries, but there is also clear evidence that a large share of textile output is sold in the domestic clothing market. This ensures that labour demand in the textiles is dependent on the fortunes of the clothing sector. In this sense then, textile demand for labour is largely a derived demand.

A racial decomposition of the above employment decline yields some interesting results. The largest losses in the clothing industry were for Asian and White workers. In absolute numbers, Asian workers were the worst affected. This would suggest that the KwaZulu-Natal region bore the brunt of the clothing industry's employment shedding, as it is this region that employs a disproportionate number of Asian workers.

Table 9: Employment Losses by Race, 1983-1993

Race	Clothing	Textiles
Asian	59.2	37.9
No.	10 020	2 130
African	8.7	36.4
No.	3 370	17 890
Coloured	9.9	6.4
No.	5 460	1 520
White	38.5	15.8
No.	1 870	1 280

Source: IDC, 1993

Within textiles, African workers were the worst affected, followed by Asian workers. African employment fell by about 18 000, while Asian employment dropped by 2 130. Yet within clothing, Asian workers were the hardest hit in the sector, in absolute and rates of change terms

It is important to analyse the extent to which the intra-industry composition of employment has changed. The table below presents employment composition by race for textiles and clothing. In addition, three sub-sectors within textiles have been identified.¹⁹ It is clear that the clothing industry employs predominantly Coloured labour, while the textile industry mainly employs African workers.

¹⁹ Using the IDC's classification system, the three selected are spinning and weaving of textiles, garment & hosiery knitting mills, and other knitting mills. These three components account for almost all of the textiles output required for clothing production.

Table 10: Intrasectoral Composition of Employment

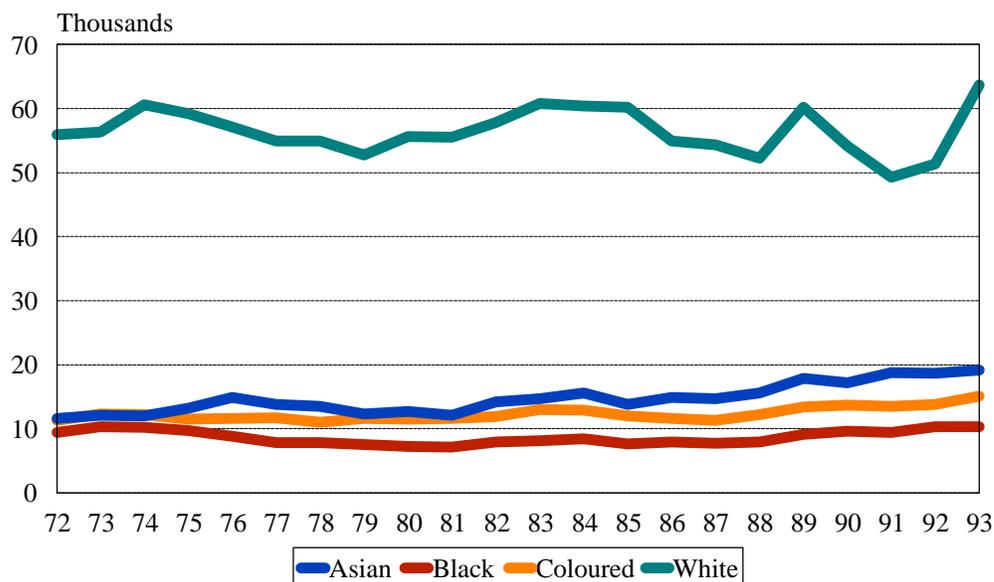
Sector	Asian	African	Coloured	White
Clothing				
1972-85	23.7	17.8	41.0	5.6
1986-93	17.4	35.2	43.4	4.1
Textiles				
1972-85	6.6	63.1	21.5	8.7
1986-93	6.3	56.9	27.8	9.0
Spinning & weaving				
1972-85	6.4	70.9	15.1	7.7
1986-93	6.8	58.7	25.7	8.8
Knitting mills				
1972-85	3.9	49.6	39.0	7.6
1986-93	3.0	68.7	22.0	6.3
Other knitting mills				
1972-85	12.2	44.1	31.9	11.8
1986-93	5.9	34.1	48.8	11.2

Source: IDC, 1995

Between the two periods outlined, there has been a racial substitution of labour. In clothing, Asian workers have been replaced by African workers. The latter's share of employment has grown from 17.8 to 35.2 percent, while Asian workers' representation has fallen from 23.7 to 17.4 percent. In textiles, African workers have been substituted by Coloured workers. The exception within textiles is that of knitting mills, where African workers have increased their share from about 50 to 69 percent, while the share of Coloured workers has declined by 17 percentage points. The shift in clothing is due in large part to firms moving to lower cost locations, far from metropolitan areas, where lower wages can also be paid. Invariably, these are areas with a large number of African workers.

Remuneration levels in the two sectors yields a pattern similar to manufacturing as a whole. There remains, in clothing and textiles, a racially determined wage structure. As the graph below indicates Asian, Coloured, and African wages in clothing lag far behind those of White workers. A similar wage structure is found in the textile industry. In 1993, for example, the average monthly wage for whites in textiles was R4 598, while the corresponding figure for African labourers was R1 252.

Figure 4: Real Average Wages in Clothing, 1993 prices (IDC, 1993)



A comparison of wage differentials over the sample period shows contrasting experiences in the two sectors. While the textile industry has managed to gradually close the wage gap between White and African workers, the clothing industry has in fact reported a widening of wage differences. The clothing differential has increased by 2.2 percentage points over the three discrete years, while that of textiles has narrowed by 12.8 percentage points. By 1993, the wage differential in clothing was eleven percentage points greater than in textiles.

Table 11: African Wages as % of White Wages

Year	Clothing	Textiles
1973	18.4	14.4
1983	13.3	19.3
1993	16.2	27.2

Source: IDC, 1993

The widening racial wage gap in clothing reflects the trend noted above of movement of clothing firms to low-cost, low-wage areas. These figures do not control for occupation within the sub-sectors, and one would expect the wage differential to persist, given that race is likely a marker for occupation.

An important measure of the ability of a sector to create jobs is that of the production-employment elasticity.²⁰ It is a measure of the sensitivity of employment to changes in production levels. The total

²⁰ It should be noted that these are elasticity measures, based on a small data sample. Clearly, using a larger data base would yield more robust results.

employment elasticities presented below show that, in clothing, a 1 percent rise in output leads to a 0.34 percent rise in employment, while the corresponding figure for textiles is 0.22 percent. That clothing shows a higher responsiveness of employment than textiles is not surprising, given that clothing is more labour-intensive than textiles. Interestingly, the employment elasticities by 'major race group'²¹ are the same for both sectors.

Table 12: Output-Employment Elasticities

Category	Clothing	Textiles
Coloured/African	0.29	0.29
Total	0.34	0.22

Source: IDC, 1993

Overall, however, the figures above suggest a fairly inelastic response of clothing and textile employment to output changes. This in turn suggests that while both these sectors may be identified, *ex ante*, as job creators, their performance is not of sectors able to absorb large numbers of workers. While it may be true that the elasticity estimates of other sectors may be much lower, these figures do imply that large absolute increases in output are necessary to engender significant increases in employment levels.

Labour, Capital, and Multi-Factor Productivity

An important determinant of competitiveness is the rate of productivity growth. Sectors that have high productivity levels usually also achieve high export market penetration. Table 13 presents three standard measures of productivity for clothing, textiles, and the three selected textile sub-sectors. In the periods 1972-85 and 1986-93, labour, capital, and multi-factor productivity in clothing has increased from the one period to the next. Indeed, the largest rise has been for labour productivity. In the case of textiles, however, negative productivity growth is observed in all cases. The largest drop was for capital productivity, suggesting an inefficient use of machinery or the use of outdated machinery. This general productivity decline cannot be attributed to the 'other knitting mill' sub-sector in the clothing pipeline, which enjoys increases in labour, capital, and multi-factor productivity growth.

²¹ Hence for clothing, the elasticity is for Coloured workers, while for textiles it is African workers.

Table 13: Labour, Capital, and Multifactor Productivity, % Change

	Labour	Capital	Multi-Factor
Clothing			
1972-85	0.3	4.0	0.8
1986-93	5.0	4.9	3.8
Textiles			
1972-85	0.9	0.9	1.0
1986-93	-0.4	-2.6	-1.1
Spinning & weaving			
1972-85	1.0	1.1	1.1
1986-93	1.1	0.8	1.0
Knitting mills			
1972-85	1.2	1.4	1.2
1986-93	0.9	0.8	0.9
Other knitting mills			
1972-85	1.1	0.8	1.1
1986-93	3.6	7.0	5.0

Source: IDC, 1995

The data show that while the clothing industry has been able to make some advances in improving productivity levels, particularly that of labour, the textile industry has seen negative growth in all measures of productivity. The rise in labour productivity in clothing is a result of its significant employment losses in this period. Given the strong forward linkage which textiles have with clothing, the decrease in textile labour productivity is surprising. It is also, potentially, a significant constraint, given that the industry faces competition from lower cost and higher quality imported fabrics. This suggests that while the clothing industry has managed a rise in capital productivity and overall multi-factor productivity, the textile industry has lagged with inefficient and unproductive resources. This may be a predictor of the sector's inability to deal with the new levels of competitiveness in the industry.

A probable explanation for the poor performance of capital productivity in textiles is provided in the table below. The figures present the growth in capital stock over time of clothing and textiles. It is clear that in the period 1991-93, growth in the capital stock of textiles and all three of the relevant sub-sectors, has been negative. It suggests that new machinery has not replaced old in this sector. This would have been tolerable had labour productivity improved. However, Table 14 shows that this has not been the case.

Table 14: Percentage Change in Capital Stock

Year/Sector	1972-75	1976-80	1981-85	1986-90	1991-93
Clothing	1.8	-5	2.7	-5.9	-0.9
Textiles	0.8	0.6	0.2	2.5	-2.5
Spinning and weaving	1.4	1.4	0.6	3	-2.8
Knitting mills	-2.7	-1.9	-0.2	9.3	-1.8
Other knitting mills	-1.5	-0.4	0.9	-6.0	-2.1

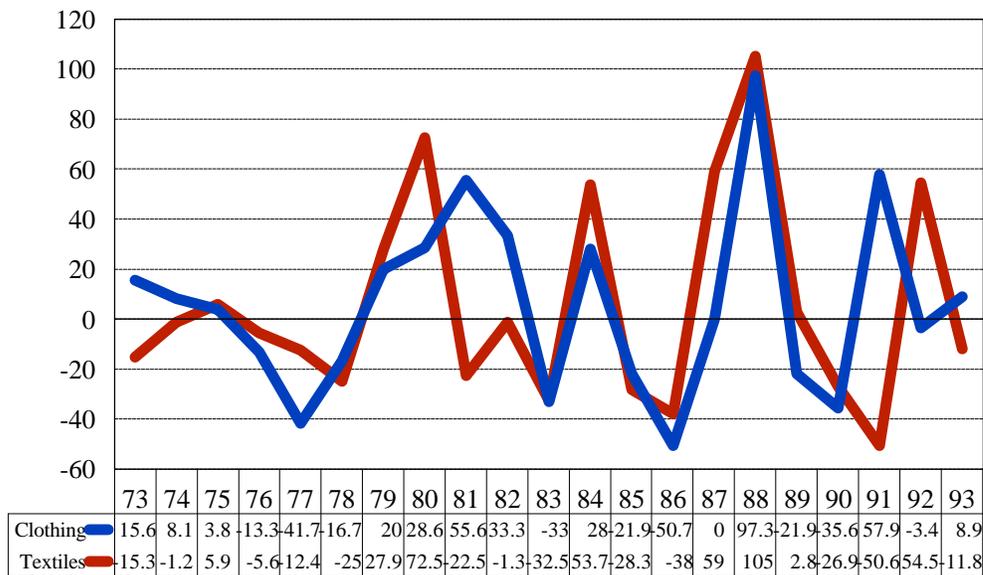
Source: IDC, 1995

While clothing's capital stock has declined in the last two time periods, this has not been sufficient to cause a drop in capital productivity. Hence, it would appear that the clothing industry has been more successful and effective in extracting efficiency gains from its factors of production, in particular, from capital equipment.

A mirror of the change in capital stock is the level of investment expenditure in the two sectors. The figure below presents these two sectors over the sample period. The strong association between the two sectors is

again very clear. Real investment expenditure in clothing is likely to be the leader, with textile expenditure the follower.

Figure 5: Real Investment Expenditure in Clothing and Textiles (% change)



A simple correlation between the two series yields a coefficient of 0.48. Testing correlation with lags, as mentioned earlier, is not possible with annual data, and the CSS stopped reporting monthly or quarterly investment expenditure figures in 1985. This makes a robust causality test impossible. What is clear though is that investment expenditure growth for the period 1983-1993 has ranged from -50.7 to 97.3 percent in clothing, while in textiles the corresponding figures were -50.6 and 105 percent. During the 1990s, while clothing's capital stock was depleted, investment expenditure rose by 21 percent. In textiles, the decline in the capital stock for this period is matched by a drop of 2.6 percent in investment expenditure.

Levels of value-added provide an indication of the degree of downstream beneficiation taking place in a sector. Value-added at the sectoral level, calculates the income accruing to all the factors of production. In addition, it presents, the value of a sector's output less that of its intermediate inputs and is a gauge of how highly processed the final product is. A comparison of a select set of manufacturing industries shows that value-added, as a percentage of production, ranged from 19.3 percent in food to 49.3 percent for electrical machinery for the period 1972-93. The table below provides a breakdown for textiles and clothing.

Table 15: Value-Added as % of Production

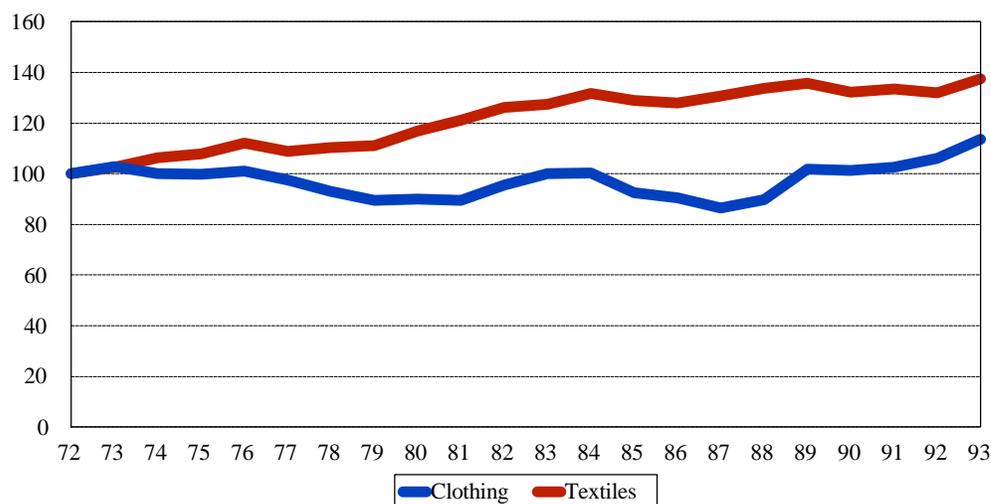
Year/Sector	1972-75	1976-80	1981-85	1986-90	1991-93	MEAN
Clothing	39.7	37.0	37.0	39.2	34.7	37.7
Textiles	30.4	31.4	33.0	29.0	30.9	31.0
<i>Spinning and weaving</i>	30.1	34.8	35.8	33.1	41.2	34.7
<i>Knitting mills</i>	42.3	34.8	47.3	31.8	28.26	37.4
<i>Other knitting mills</i>	25.2	25.3	24.0	17.0	18.7	22.2

Source: IDC, 1995

It is clear that value-added is greater in clothing than in textiles. Within the broad set of manufacturing sectors, textiles lies somewhere in the lower range, while clothing is in the mid-range. The average for manufacturing as a whole for the entire period was 33 percent, and with the exception of other knitting mills, all the above exceeded this average.

A more comprehensive measure of both the variable costs firms face and the returns to these costs is unit labour costs. Unit labour costs are calculated as the average remuneration relative to labour productivity. As the graph below shows, the trend in both sectors has been for labour costs to rise. In textiles, from a base year value of 100 in 1972, labour costs rose to approximately 138, while the corresponding figure for clothing was 114.

Figure 6: Real Labour Costs in Clothing and Textiles, 1972=100 (IDC, 1993)



It is evident that average wages in both sectors have risen at a rate higher than labour productivity, generating higher real labour costs. Textiles, relative to clothing, have also shown a greater rise in labour costs. This suggests poorer labour productivity relative to wage cost increases, compared to clothing. Data on the growth rate of labour costs reveal that, in the 1990s, both clothing and textiles experienced rising real labour costs. In other words, the rate of change of average wages in the 1990s has outstripped the rate of change of labour productivity for the same period.

Use of Inputs

The final piece of information is that of the nature of inputs for the two industries. As the table below suggests, there is a heavy dependence on local inputs in textiles and clothing. Close to 80 percent of both industry's factors of production are locally sourced.

Table 16: Local and Imported Inputs as % of Total Intermediate Inputs

Sector	Local	Imported
Clothing	78.8	21.2
Textiles	77.0	23.0
<i>Spinning and weaving</i>	76.7	23.3
<i>Knitting mills</i>	74.7	25.3
<i>Other knitting mills</i>	75.1	24.9

Source: IDC, 1995

Inaccuracies may of course arise with such figures, as intermediate inputs that are locally sourced may be embedded with imported components. Hence the import ratio may in fact exceed that reported here. It is very likely though that this share for the two sectors is close to the true value, given the sectors' relative labour intensity and hence low dependence on capital equipment. It is in the latter that such distortions will arise. The share of imported inputs, of course, says nothing of the value of these products. These values could be high, particularly in the case of textiles, where the new, sophisticated machinery is particularly expensive.

Trade Patterns

This section presents a detailed outline of the export profile of textiles and clothing. Over the period 1972-93, the two sectors combined accounted for about 8.3 percent of total manufacturing exports from South Africa, and 4.7 percent of total manufacturing imports. For the same period, textiles' contribution to total merchandise exports was 3 percent, while that of clothing was 1 percent. Thus, these sectors are not large contributors to the external balance in the manufacturing industry as a whole.

Examining export shares as a share of own production measures the degree of outward orientation of a sector. Table 17 provides the data for each of the sectors and the three textile sub-sectors. The mean for the period shows that the textile industry has been more outward-oriented than clothing. While the clothing industry exported on average 9.6 percent of its total annual output, the mean for textiles is 14.3 percent. Note that the most outward-oriented of the textiles sub-sectors in the pipeline is that of spinning and weaving.

Table 17: Exports as % of Output, 1972-1993

Sector/Year	1972-75	1976-80	1981-85	1986-90	1991-93	MEAN
Clothing	8.0	12.4	12.0	8.3	7.5	9.6
Textiles	9.3	12.3	12.7	16.3	21.0	14.3
<i>Spinning and weaving</i>	12.0	14.7	13.6	19.8	32.7	17.6
<i>Knitting mills</i>	1.4	5.7	13.1	18.0	20.4	11.4
<i>Other knitting mills</i>	2.4	8.5	9.2	9.2	6.2	9.2
Total Manufacturing	8.5	10.2	7.7	9.7	11.6	9.6

Source: IDC, 1995

Since the mid-1980s, the data suggests that while clothing exports as a share of production have fallen, they have risen dramatically in the textile industry from 16.3 percent to 21 percent. This development is in large part due to the huge increase in the spinning and weaving sub-sector. The clothing industry has been performing poorly over time, as its share of exports has fallen steadily during the period, from 12.4 percent in 1976-80 to 7.5 percent in 1991-93. The corresponding figures for textiles are 12.3 and 21 percent.

Table 18 ranks the clothing and textiles sectors relative to a set of 10 other manufacturing industries. Iron and steel clearly ranks as the most outward-oriented in the set, exporting about 24 percent of its output. This is followed by the spinning and weaving sub-sector, textiles as a whole, and then knitting mills.

Table 18: Ranking of Sectoral Outward Orientation, by Export Share

Sector	Export Share
Iron & steel	23.8
Spinning & weaving	17.6
Textiles	14.3
Knitting Mills	11.4
Machinery	10.4
Food	10.3
Clothing	9.6
Total Manufacturing	9.6
Paper	9.4
Chemical prod.	9.3
Other knitting mills	9.2
Metal prod.	5.2
Electrical mach.	4.3
Motor	4.0
Beverage	3.5
Plastics	1.3

Source: IDC, 1995

Only two sectors, namely machinery and food, separate clothing and textiles. Given that clothing is a labour-intensive sector and has a low dependence on imported equipment, this is a good performance. Note that four sectors in the set have exported less than 5 percent of their output. The above suggests that while the clothing and textile industries face considerable pressure from foreign competitors, relative to other manufacturers they do export a fairly large portion of their output. This would seem to place them in a good position, relative to other manufacturers, in growing through export promotion.

The past export performance of clothing and textiles can be evaluated by examining their growth rates. One manner in which these growth rates can be measured is to compare them against the growth of total manufacturing exports and also total national output. The former is useful in that it illustrates whether textiles or clothing performed better or worse than the manufacturing average for the period. The latter measure shows to what extent export supply has been able to grow relative to the growth in the domestic economy. Using GDP includes exports, however, and hence both the direct and indirect effects of export growth on GDP growth are captured. Using “GDP net of exports” yields a more accurate comparison of export performance, as only the indirect effects of export growth on economic growth are included.²²

²² The indirect effects of exports include the realisation of economies of scale for domestic producers, hence allowing for a price reduction in the commodity, so expanding domestic market share.

Table 19: Export Growth Rates, by Sector, 1972-1993

Sector/Year	1972-75	1976-80	1981-85	1986-90	1991-93	MEAN
Clothing	5.78	18.45	-1.05	-9.78	5.39	3.8
Textiles	6.90	12.70	-2.87	3.27	-1.81	3.6
<i>Spinning and weaving</i>	-16.3	8.3	-4.2	4.7	-2.5	-0.6
<i>Knitting mills</i>	-80.0	45.6	1.7	4.4	-0.7	0.8
<i>Other knitting mills</i>	-24.5	33.8	5.2	-9.1	-30.0	-0.7
Total Manufacturing	3.44	6.98	-1.21	6.43	1.78	3.5
GDP growth	7.45	5.70	0.83	1.09	-0.91	2.8
GDP net of Xs growth	6.56	3.21	2.03	2.61	-0.29	2.8

Source: IDC, 1995

Statistics need to be interpreted very carefully. While clothing's share of exports had declined in the last two periods, the growth rates of these exports had in fact risen from -9.8 to 5.4 percent. This is in contrast to textiles which, with rising outward orientation over the period, reports a general decline in the growth rate of these exports. This is most spectacularly true for the 'other knitting mills' sub-sector, where exports fell by 30 percent in the 1991-3 period.

While clothing reports a healthier export growth performance than textiles, both sectors have a mean export growth rate above that for manufacturing as a whole. In addition, production for export markets has been growing faster than GDP. This suggests that foreign demand may evolve separately from domestic demand, which in turn offers a risk minimisation strategy for those firms who can export, thereby diversifying their revenue sources over markets whose demands vary independently. A more detailed analysis provided below will determine the extent to which exports are not simply residual production that cannot be sold in domestic markets.

Table 20 shows that there is a high degree of variability in the growth rates of both clothing and textile exports. The knitting mills sub-sector best illustrates this fact. Its export growth rates varied from 63 percent to -106 percent, with a standard deviation of 42.5. It could legitimately be argued that such volatility in exports do not reflect stable and secure markets. They reflect either residual domestic production that is sold erratically in foreign markets, or foreign buyers that are not regular and loyal customers of textile or clothing commodities. As will be shown below, the elasticity measures for these sectors would seem to agree with this analysis of the raw data.

Table 20: Median, Max/Min, Standard Deviations of Sectoral Export Growth, 1972-1993

Sector	Median	Maximum	Minimum	S.Deviation
Clothing	1.1	26.8	-25.3	13.8
Textiles	5.5	32.4	-36.4	14.9
<i>Spinning & weaving</i>	2.3	-52.4	26.6	16.5
<i>Knitting mills</i>	5.4	62.9	-105.8	42.5
<i>Other knitting mills</i>	1.6	48.6	-52.4	30.3
Total Manufacturing	3.9	19.2	-13.6	9.7

Source: IDC, 1995

It is also important to place export performance into a relative perspective. Hence the table below presents export growth rates relative to output and import growth rates. It is immediately evident, for example, that while the mean export growth rates for clothing and textiles were positive, over that same period, the net export growth rate was negative for clothing and positive for textiles. For clothing, this means that its import demand was growing faster than export supply. This reflects a large volume of legal clothing imports entering the country, rendering clothing's trade balance negative.²³ The negative export net of output growth of clothing is also reflective of a relatively inward oriented sector, where output is destined for the domestic market and there is no aggressive export drive.

Table 21: Mean Exports, Imports, and Output Growth

Sector/Year	Mean X	Mean M	Mean O	Diff X-M	Diff X-O
Clothing	3.4	3.7	4.0	-0.3	-0.6
Textiles	1.9	0.3	-1.0	1.5	2.8
<i>Spinning and weaving</i>	-0.6	-1.9	-4.7	1.3	4.1
<i>Knitting mills</i>	0.8	3.2	-0.1	-2.4	0.9
<i>Other knitting mills</i>	-0.7	2.9	1.9	-3.6	-2.6
Total Manufacturing	3.7	1.8	2.3	1.9	1.4

Source: IDC, 1995

The high volume of imports is not evident in textiles, where net export growth was positive. Notably, though, net export growth rates were negative for knitting mills and 'other knitting mills'. In textiles, despite the decline in output growth, exports grew by 1.9 percent, meaning that growth of exports net of output grew by 2.8 percent, twice the average for manufacturing as a whole. This may also reflect the relatively large level of textile imports against which local mills have to compete.

However, while the growth rates speak of clothing exports growing slower than clothing imports, and textiles performing even better, the absolute trade balances tell a different story. As Table 22 reveals, the clothing sector ran a trade surplus for all years in the sample, while the textile industry ran a trade deficit. Hence in growth rate terms, the textile industry has performed well, but the value of exports have been outstripped by the value of imports.

Table 22: Net Exports by Sector, R millions

Sector	1972-75	1976-80	1981-85	1986-90	1991-93	Mean	Median
Clothing	117	493	619	432	321	397	414
Textiles	-1,383	-639	-940	-517	-548	-805	-684
<i>Spinning and weaving</i>	-943	-609	-841	-465	-364	-656	-653
<i>Knitting mills</i>	-132	-110	-71	12	-24	-66	-72
<i>Other knitting mills</i>	-77	62	29	16	-60	2	14
Total Manufacturing	-32,009	-23,082	-27,285	-24,677	-17,961	-25,003	-24,849

Source: IDC, 1995

This suggests that the Rand value of clothing imports is outstripped by the exports of clothing, despite the rapid growth of the former. This is good for the industry of course, but current trends of large volumes of

²³ Note that imports here refer to clothing only. Machinery, for example, imported by the clothing industry is captured as machinery and not clothing.

cheaper imports suggest that the trade balance may already be in deficit. The negative textiles trade balance may reflect imports of expensive, high quality fabric for use by clothing manufacturers. This seems to be a continuous trend throughout the period.

Another measure of the performance of a sector's exporting capabilities is the terms of trade. The terms of trade index is measured as the ratio of export prices to import prices. If the index of export prices is greater than the index of import prices for any given period, the economy or sector in question experiences a favourable terms of trade. Note that this means that the value of the terms of trade is greater than the base year value (usually 100). Table 23 presents the terms of trade according to each of the two sectors. Export and Import prices are hence those applicable to each given sector, and the data represents what are essentially sectoral terms of trade over the stipulated period.

Table 23: Terms of Trade by Sector, 1972-1993, 1993=100

Sector	1972-75	1976-80	1981-85	1986-90	1991-93	MEAN
Clothing	119.58	95.06	81.46	84.98	96.80	95.58
Textiles	118.57	94.02	80.48	89.71	100.14	96.58
Total Manufacturing	109.62	97.66	89.07	88.67	94.01	95.81

Source: IDC, 1995

The table shows that for both clothing and textiles, on average for the period, the terms of trade were unfavourable. Put differently, both clothing and textiles revealed higher import prices than export prices between 1972 and 1993. Interestingly though, it was only in the first period that export prices were higher than import prices for the two sectors and manufacturing as a whole. Indeed, a more complete list of manufacturing sectors shows that only the motor vehicles and plastics sectors experienced favourable terms of trade.

The above gives the terms of trade at any given point in time. It is also instructive to look at changes over time, as in Table 24.

Table 24: Terms of Trade, % change, 1976-1993

Sector	1976-80	1981-85	1986-90	1991-93	MEAN
Clothing	-20.50	-14.31	4.32	13.92	-4.14
Textiles	-20.71	-14.40	11.46	11.64	-3.00
Total Manufacturing	-10.91	-8.80	-0.45	6.03	-3.53

Source: IDC, 1995

It is clear that the terms of trade deteriorated over the first two periods, but have begun to improve over the latter two. In other words, since 1986 export prices have been rising faster than import prices. Hence despite the fact that export prices are lower than import prices, the gap between the two has been closing since the mid-1980s. Note that the same is true for manufacturing overall.

The data below present a broad overview of the major markets in which South African clothing and textile products are found. It should be noted that there are serious compatibility problems with collecting data according to export destinations. The Department of Customs and Excise (DCE) has collected data from 1988 according to the Harmonised System of Trade Classification instead of an SITC variant. Moreover, data on export destinations are scarce and have only been collected for the period 1992 to 1995. Deriving an

accurate description of South Africa's major trading partners for clothing and textiles over a sufficiently long time period, therefore, becomes a difficult exercise.²⁴

Table 25: Mean Shares of Sectoral Exports to World Regions, 1992-1995

Region/ Sector	Africa	Europe	E. Eur	N. Amer	S. Amer	M. East	Asia	Australia	Unknown
Textiles	18.49	33.67	0.72	9.41	2.12	1.91	29.74	3.80	0.14
Clothing	12.91	45.21	6.03	22.79	0.19	1.57	11.02	0.26	0.02
Manuf. Mean	30.06	32.35	1.66	9.14	4.49	3.22	16.39	2.33	0.36

Source: IDC, 1996

The table above shows that the most important markets for textile exports are Europe and Asia, accounting for approximately 63 percent of all textiles exports. For the clothing industry, North America and Europe account for 68 percent of total exports. The most undeveloped export region for textile manufacturers is Eastern Europe, while for clothing, the most undeveloped market is South America. Other data, not presented here, reveal that the textile industry has a high share of its exports entering the developing country regions of Africa and Asia, a share which is also high relative to other sectors in the manufacturing industry. The clothing industry, on the other hand, has a very low proportion of its exports (24 percent) going to the developing country regions. This is in large part due to the fact, particularly in the case of Asia, that these areas can source much cheaper garments elsewhere.

Turning to the African market, five African economies account for over half of both clothing and textiles exports in to the continent. All five fall in the Southern Africa region.

Table 26: Exports to Selected African Countries, 1992-1995

	Clothing	Textiles
Angola	13.54	10.35
Zimbabwe	7.93	39.09
Zambia	16.65	10.57
Malawi	11.26	8.46
Mozambique	20.13	7.72
Total	69.50	76.18

Source: IDC, 1996

The main destination in Africa for South African clothing products is Mozambique, followed by Zambia. In textiles, the order is Zimbabwe followed by Zambia. The high exports to Mozambique reflects an economy unable to provide basic goods to the population, but also one that is beginning to reconstruct after a long, protracted civil war. Regional integration schemes with South Africa will assist in maintaining the momentum of these export flows to Southern Africa. The actual volumes of these products are very small, indicative of South Africa's very recent entry into the African market. It is clear that Africa can become a major source of growth for these two industries, given South Africa's economic dominance over and geographical proximity to these untapped markets.

The European market is dominated by the United Kingdom, which attracts over half of clothing exports and 40 percent of textile exports. Germany is the second largest recipient of clothing exports, while Italy is in this category for textiles. Once again, note the concentration in exports to different economies in the region.

²⁴ The data is referred to as South African exports, but in reality represent South African Customs Union figures. South Africa's share, though, of SACU exports is well over 90%.

Table 27: Exports to Selected European Countries, 1992-1995

	Clothing	Textiles
U.K.	52.65	39.75
Netherlands	7.04	5.65
Germany	33.26	19.30
Italy	0.27	19.95
Total	93.22	84.65

Source: IDC, 1996

Two countries, namely the U.K. and Germany, account for about 86 percent of all clothing exports to Europe, while the figure for these two countries in textiles exports is 59 percent. In the case of the U.K., this is explained by the fact that for many years, this was one of the few areas to which South Africa could export its commodities.

Table 28 presents country destination data for the Asian region. In clothing, Hong Kong and Taiwan account for 93 percent of all clothing exports to Asia. The distribution in textiles is more even as four economies account for 89 percent of all Asian-bound exports.

Table 28: Exports to Selected Asian Countries, 1992-1995

	Clothing	Textiles
Singapore	4.12	1.17
Hong Kong	51.99	20.69
Taiwan	40.81	26.81
Japan	0.54	21.85
South Korea	0.02	19.41
TOTAL	97.46	89.92

Source: IDC, 1996

One reason for the significant share of Taiwan in the above export shares is the historical linkage between Taiwan and the apartheid government. This relationship has recently been discontinued with the state's recognition of China, which may soon be reflected in the dominance of China relative to Taiwan, in export shares.

The above tables make it clear that while there is a wide distribution in the destination of South African clothing and textiles exports, a few regions dominate. Europe is the most important destination for South African garments and textiles. Within the broad regions, it also clear that a small number of markets are recipients of South African exports. The implication for export-led growth is that untapped regions, particularly those economies with large consumer markets and high growth rates, must be accessed. Secondly, exporters should use those markets already entered as a launch pad for spreading South African clothing and textiles to other markets within the same region currently not importing South African garments and fabrics. For example, the reputation for quality of South African textiles and garments in the U.K., could be used as a selling point to penetrate markets in the rest of Europe.

Price Ratios

The final set of secondary data covered here is that of input and output price ratios. Data exist for local prices, import and export prices, and also labour costs.²⁵ The figures below are averages over the sample period. In each category, the threshold value is 1. Hence a ratio of local output to local input prices which exceeds 1.00 indicates that output prices have been greater. Local output prices are below those of imported inputs, however, indicative of protectionist policies used to raise the price of imports.

Table 29: Price Ratio Indices, 1993=100, Textiles and Clothing

	O-Local / I-Local	O-Local / I-Import	O-Export / I-Total	O-Total/ Labour Input Price
Textiles	1.01	0.96	1.01	1.25
Clothing	1.07	0.93	1.07	1.43

Source: IDC, 1995

Encouraging for export promotion is the fact that the export price index for both sectors is greater than the index for input prices. The gap here is larger for clothing than textiles, suggesting that clothing has a greater price advantage than textiles in foreign markets. Perhaps the most interesting of these relative prices is the combined price index of exported and domestic output, relative to the labour input price index. By a quite substantial margin, labour input prices are less than total output prices. This indicates that, for both textiles and clothing, more is gained from every unit of output sold, relative to the cost of each unit of labour hired.

Estimates of Export Price and Income Elasticities

In order to better understand how clothing and textiles exports react to both price and income changes, a model was used to estimate price and income elasticities. Given limited data availability, the estimates were made for clothing, textiles and leather as a whole.²⁶ The period covered was January 1990 to December 1995.

To understand and estimate export supply elasticities for prices and income, the following general model is utilised, drawing on Goldstein and Khan (1978):

$$X_{tj}^d = \alpha \cdot (P^X / P^{XW})_{tj}^{\beta_1} \cdot (Y_{tj}^*)^{\beta_2} \quad (1)$$

$$X_{tj}^s = \alpha \cdot (P_{tj}^X / P_t)^{\beta_1} \cdot (Y_{tj})^{\beta_2} \quad (2)$$

where (1) and (2) represent the export demand and export supply functions respectively, in time t for sector j . P^X is the price of exports at time t for sector j . P^{XW} (Y_{tj}^*) is the weighted average of export prices (real incomes) of South Africa's major trading partners. P_t is the aggregate domestic price level and Y_{tj} is an index for domestic productive capacity.

Given that South Africa is a small, open economy, it is assumed that the export demand function is perfectly elastic. South Africa is therefore a price taker in the export market and is unable to influence the price of its exported commodity. In econometric terms, this assumption avoids any simultaneity problems as the estimation procedure is only on shifts in the supply function on any given demand curve.

²⁵ The categories, from the table, are as follows: O-Local = Local Output Price Index; M-Local = Local Input Prices; M-Import = Imported Input Prices; O-Export = Exported Output Prices; M-Total = Total Input Prices; O-Total = Total Output Prices.

²⁶ The data was gathered from the *Quarterly Bulletin of Statistics* (various issues) published by the Central Statistical Services (CSS). This source was chosen given that a long time series was available on a monthly basis, and according to a fairly large number of manufacturing sub-sectors.

Equation (2), in log-linear form, represents the income and price elasticities to be estimated. β_1 and β_2 represent the relative price and real income elasticities of export supply. The expected signs are $\beta_1 > 0$ and $\beta_2 < 0$.

For β_1 , as relative export prices rise, firms will be induced to supply more exports. However, should domestic prices rise faster than export prices, export supply falls. The reasoning here is that a rise in domestic prices can be taken as a proxy for factor costs (Goldstein & Khan, 1985:1048). Should domestic prices rise, in all likelihood so would factor costs have increased. This reduces the profitability of firms and hence reduces the return on exports. The outcome of domestic prices rising faster than export prices then, is lower export supply. The domestic capacity coefficient (β_2) is assumed to be negatively correlated with export supply for three reasons. First, a higher rate of domestic capacity usage will mean greater delivery delays and longer queues, which will reduce the ability to meet export orders. Second, increased capacity utilisation will divert production away from foreign towards domestic markets. Third, the domestic market may be more profitable than the foreign, and hence export supply will drop (Zilferbarb, 1980:446). Finally, it is possible that domestic industries export only that output which they cannot sell on the domestic market, i.e. a 'residual export' factor exists. In this case, should domestic demand rise, export supply would drop.

Estimation Procedure

The econometric methodology employed here makes use of cointegration analysis. Hence the procedure will be to test for stationarity for each of the chosen variables in the export supply equation. Testing for stationarity is effectively a test of the null hypothesis that a data series has a unit root and hence is non-stationary,²⁷ against the alternative of stationarity. One is likely to find though that most time series data is non-stationary or follows a random walk (Pindyck & Rubinfeld, 1991:449). Given that non-stationary data do not exhibit an underlying stability or a tendency to move around a given equilibrium value, it is argued that they will simply yield coefficients in the estimation procedure that do not reflect causality, but rather incidental correlation's and hence a spurious regression.

If the null hypothesis is accepted and the data series are non-stationary, we can test instead whether linear combinations of the variables are stationary.²⁸ This is the essence of the cointegration test. That is, the cointegration analysis indicates whether the linear combination of the variables form a stationary, stable relationship. The cointegration tests performed here will follow the standard Engel-Granger (EG) framework. Hence the tests that will be performed to ascertain the presence of cointegration will be the Dicker-Fuller test, the Augmented Dickey-Fuller test and the standard Durbin-Watson statistic. The tests for cointegration entail testing the error term of the regression. If the error term is deduced to be stationary, and hence $I(0)$, then the variables in the regression are cointegrated. Cointegration of the variables means that causality can be inferred in the regression and allows for usual OLS estimation. In addition the estimates of the coefficients take on a 'super-consistency' property.

Following the EG procedure, the second step would be to estimate the short-run error correction model (ECM) to obtain information on the speed of adjustment to the equilibrium. The reasoning here is that the theoretical models estimated, represent long-run equilibrium positions. Indeed, the export supply function in equation (2) above represents firms being on their supply function at all times, and therefore in an equilibrium position. The ECM would estimate their response to price and income changes in disequilibrium positions. The purpose of the ECM then, is to estimate adjustments to the long-run equilibrium, and the

²⁷ It is recognised though that unit root tests, because the sample size is finite, may yield incorrect results. However the test is adequate at revealing whether a series has stationary or non-stationary *properties* (Harris, 1995:47).

²⁸ We could of course induce stationarity by differencing each of the variables. This takes us into the terrain of ARIMA models. However, it is true that this form of estimation results in a loss of information about the long-run relationship between the variables (Pindyck & Rubinfeld, 1991:465-6)

estimation is in effect of the short-run disequilibrium position, when firms may in fact be off their export supply functions.

Estimation Results

Equation (2) was log-linearised in the estimation procedure in the form:

$$\ln X_{s_{ij}} = \alpha + \beta_1(\ln P_{ij}^X - \ln P_{ij}) + \beta_2 \ln Y_{ij} + u_{ij} \quad (2a)$$

All variables were tested for stationarity, using the Augmented Dicker-Fuller (ADF) Unit Root Test. The test is of the null hypothesis that the series contains a unit root, and hence is non-stationary. It is, as mentioned above, the first step in the EG framework. Of the four series measured, all were non-stationary. It should also be noted that the unit root tests were performed with eight lags on each of the variables. In addition, an intercept was included with a trend term. The choice of lags was based on the method of the lag number being associated with the highest R², which is often claimed to be an acceptable way in which to choose the number of lags. Most of the variables tested then, are I(1), and thus non-stationary.

What the above ADF test results suggest is that performing an ordinary OLS regression, using these variables, would in most cases yield spurious results, and hence render the coefficients meaningless. It is possible though that a linear combination of the chosen variables, may be stationary, yielding interpretable coefficients. Hence a cointegration test was undertaken using the Johansen Cointegration Test. The results show that for the sectoral equation, the null hypothesis of no cointegration was rejected. In other words, export supply X_{s_{ij}} is cointegrated with export prices (P_{ij}^X), domestic prices (P_{ij}) and volume of production (Y_{ij}) for clothing, textiles and leather. The estimation equation includes a constant, hence when testing for cointegration, we did not include a constant. Also, inclusion of a time trend tends to results in a loss of power manifest in an under-rejection of the null of no cointegration when it is actually false. The Likelihood Ratio Tests of the Johansen Test revealed a strong rejection of the null hypothesis, at the 1 percent level for all variables.

Given the strong results in favour of cointegration, we can be confident that the normal OLS estimation will yield robust and interpretable coefficients. The OLS estimates are provided in the table below, for the long-run equilibrium position (*t* statistics are in parenthesis).

Table 30: Long-Run OLS Elasticity Estimates for Clothing, Textiles, and Leather

Variable	Elasticity
Relative Prices	1.05 (0.84)
Income	0.03 (0.02)

What the table suggests is that both price and income elasticity in the long-run for clothing, textiles and leather are not significantly different from zero. Unit root tests on the error term of the regression confirm that the term is stationary. The results suggest that in the long-run export supply in this sector does not respond at all to changes in the relative price of exports or changes in the volume of production. Price and income elasticity for the clothing, textiles and leather sectors, in the long-run, is perfectly inelastic.

Given that the above provides a long-run stable estimation of the export supply function, it is necessary to investigate what short-run dynamics may be at work. To achieve this an error correction model (ECM) was utilised. Hence the long-run equation was over-parameterised to yield, in general form:

$$\ln X^s_{ij} = \beta_1 \ln X^s_{t-1j} + \beta_2 \ln X^s_{t-2j} + \beta_3 \ln X^s_{t-3j} + \beta_4 \ln X^s_{t-4j} + \beta_5 \ln X^s_{t-5j} + \beta_6 \ln X^s_{t-6j} + \beta_7 \ln X^s_{t-7j} + \beta_8 \ln X^s_{t-8j} + \beta_9 (\ln P^x - \ln P)_{t-1j} + \beta_{10} (\ln P^x - \ln P)_{t-2j} + \beta_{11} (\ln P^x - \ln P)_{t-3j} + \beta_{12} (\ln P^x - \ln P)_{t-4j} + \beta_{13} (\ln P^x - \ln P)_{t-5j} + \beta_{14} (\ln P^x - \ln P)_{t-6j} + \beta_{15} (\ln P^x - \ln P)_{t-7j} + \beta_{16} (\ln P^x - \ln P)_{t-8j} + \beta_{17} \ln Y_{t-1j} + \beta_{18} \ln Y_{t-2j} + \beta_{19} \ln Y_{t-3j} + \beta_{20} \ln Y_{t-4j} + \beta_{21} \ln Y_{t-5j} + \beta_{22} \ln Y_{t-6j} + \beta_{23} \ln Y_{t-7j} + \beta_{24} \ln Y_{t-8j} + u_{ij} \quad (3)$$

The results of equation (3) are presented below, with the t statistics in parenthesis. In each case, no intercept or trend was assumed, and the residual was carried over from the long-run OLS estimates. The residual was assumed exogenous in the estimation. Eight lags were introduced in the equation. The large number of lags is due to the frequency of the data, meaning that one or two lags are unlikely to yield any price or income effects when using monthly data. It is more likely then, that export supply will adjust to prices and income over a period of 6 to 8 months, rather than 1 or 2, given the time required to produce goods, deliver to export markets and so on.

Table 31: Short-Run Error Correction Model Estimates: Export Supply

Variable	Elasticity
Export Supply (X^s_{t-1j})	-0.05 (-0.02)
X^s_{t-2j}	-0.08 (-0.40)
X^s_{t-3j}	-0.11 (-0.64)
X^s_{t-4j}	-0.11 (-0.75)
X^s_{t-5j}	-0.11 (-1.01)
X^s_{t-6j}	-0.10 (-1.23)
X^s_{t-7j}	-0.05 (-0.92)
X^s_{t-8j}	-0.04 (-1.39)

Table 32: Short-Run Error Correction Model Estimates: Relative Prices

Variable	Elasticity
Relative Prices (P_{t-1j}^x / P_t)	-0.01 (-0.02)
P_{t-2j}^x / P_{t-2j}	-0.02 (-0.04)
P_{t-3j}^x / P_{t-3j}	0.22 (0.56)
P_{t-4j}^x / P_{t-4j}	0.47 (1.26)
P_{t-5j}^x / P_{t-5j}	0.20 (0.52)
P_{t-6j}^x / P_{t-6j}	0.20 (0.55)
P_{t-7j}^x / P_{t-7j}	0.03 (0.09)
P_{t-8j}^x / P_{t-8j}	0.01 (0.01)

Table 33: Short-Run Error Correction Model Estimates: Volume of Production

Variable	Elasticity
Volume of Production (Y_{t-1j})	-0.66 (-2.90)
Y_{t-2j}	-0.45 (-1.58)
Y_{t-3j}	-0.67 (-2.18)
Y_{t-4j}	-0.43 (-1.39)
Y_{t-5j}	-0.35 (-1.15)
Y_{t-6j}	-0.21 (-0.65)
Y_{t-7j}	-0.21 (-0.77)
Y_{t-8j}	-0.24 (-1.18)
Residual	0.97 (39.53)

It is clear that the residual is highly significant, supporting the earlier assertion that the associated equation is cointegrated. The high values of the coefficients indicate very strong feedback effects into the short-run dynamic process.

The table reveals that all variables are insignificant, except for lagged volume of production. The coefficient on this variable is negative, and says that for one period lagged, a 0.66 percent drop in production levels will cause export supply to rise by 1 percent. If volume of production is taken as a proxy for domestic demand, this coefficient provides strong evidence for the argument that local firms are 'residual exporters.' This claim is based on the belief that domestic firms only export what they cannot sell on the domestic market. Clearly

then, if domestic demand drops, export supply will rise. The negative coefficient confirms that clothing, textile and leather firms do behave as 'residual exporters'.

In the main, the above results suggest that the clothing, textiles and leather firms are essentially small exporters, relative to world demand. This is combined with a sector that is not yet oriented in a significant way to the world market, relative to international competitors. This lack of outward-orientation is reflected then, in a sector that has not had a long period of involvement as an exporter in the global economy, and hence can be categorised as new entrant into most world markets. Given this characterisation the insignificant results in long-run prices and income are not surprising. The only significant effect thus, would seem to be a response in the short-run either to a decline in domestic demand or an increase in volume of production. This is strongly indicative of an uncompetitive clothing, textile, and leather industry that only reacts to price and income changes once the domestic market has been saturated.

In the long-run, given the chosen sample period, firms do not respond to price and income changes, given this low penetration of the world market. The strong short-run response speaks of an industry that has potential, but one that still needs to increase its share of world exports, before price and income effects have any long-term bearing on its performance.

Conclusion

This section has used available secondary data to construct an empirical profile of the major characteristics of the clothing and textile sectors. It suggests that both industries have lost employment since the 1970s, with a close relationship in the movements of these two variables, between the two sectors. Wage and productivity data indicate that while the textile industry has narrowed the racial wage gap, the clothing industry has not. On the other hand, while productivity levels have fallen in textiles, they have risen in clothing.

The trade data illustrate that both sectors, relative to other manufacturers, are outward-oriented and are experiencing above average export growth rates. The direction of trade statistics reveal that Europe is the primary region and the United Kingdom the primary country, for both clothing and textile exports.

Finally, the export behaviour of both these sectors can be categorised essentially as that of residual exporters, where the domestic market is the primary consumer of local production. With the empirical background of the two sectors now established, we turn to a more qualitative analysis of the major constraints and problems facing the textile and clothing industries in the Western Cape and the KwaZulu-Natal regions.

V. Domestic Textile and Clothing Sectors: Qualitative Assessments

The Textile and Clothing Industries in the Western Cape

Introduction

There can be no doubt concerning the challenges facing the Western Cape clothing and textile industries. In recent times the advent of cheaper legal and illegal import substitutes have crippled both industries. This was inevitable, though, given the industries' years of isolation and protectionism and South Africa's recent decision to integrate with the world economy. These lower-cost garments and fabrics, primarily from the East, are one of the key reasons for the general downturn in clothing and textiles. There exists, however, a vast resource of experience and expertise in both sectors that may enable each sector to reposition itself, in the next few years, as manufacturers of higher value-added, high quality garments and fabrics. The intention of this chapter is to evaluate the clothing and textile industry, in the light of these new developments and the new directions for the industries that have been proposed.

Description of the Sample

The basis of the information and analysis that follows is a series of open-ended interviews with 30 clothing firms and 5 textile manufacturers operating in the Western Cape. Of the textiles firms, employment ranged from a low of 100 to a high of 400 workers. The mills were spread over the product price range, with some producing at the low-end of the range, and others at the high-end. Two of the five mills did not export at all, with the remaining three having established links with foreign buyers.

The employment sizes of the clothing firms varied from eighty to 2500 workers. The mean employment size in the sample was 482 workers. This would indicate a fairly established, long-standing industry. Indeed, most of the firms interviewed had been in existence for at least forty years. Almost all manufacturers were in the middle or upper-end of the product range, with only one firm that could strictly be categorised as a low-end producer. This probably reflects the quick response of firms in the face of low-cost East Asian competition.

Only four firms in the sample did not make use of independent cut, make and trim (CMT) operations. These four included the two CMT firms that were interviewed, and hence would not be expected to be outsourcing. Thus, 26 of the 28 firms in the Western Cape sample outsourced their work to labour brokers when they could not handle all the production orders in house. Designers were present in the workforce of every firm interviewed, either to work on internally generated designs or to collaborate with retailers on designs made to their specifications. The two CMT operators did not have their own designers.

With regard to export orientation, there was significant differentiation in the sample. Twenty-eight firms had already developed export markets, and another two or three were seriously considering the option. In most cases, the volumes of exports were not large.

The sample of clothing firms suggests then, that an unexpectedly high degree of broad homogeneity exists amongst them. Most producers appear to be medium-sized and producing either in the middle or upper-end of the market. In addition they invariably make use, albeit in varying degrees, of CMT operators. All employ a team of designers to assist in production. The only differentiating factor amongst the firms, was the degree of export orientation. Just under half of the sample were exporters, with most of the other firms never having even considered the option.

Upstream or Production Issues

Labour and capital are the two key factor markets in the textile and clothing sectors. This section proposes to analyse the wide range of issues characterising the clothing and textile labour markets. More specifically, the issues raised include labour market flexibility in the industry, recognition and development of skills, and the

relevance of incentive and bonus schemes. With regard to capital markets, existing and future needs in relation to capital investment in both industries will be assessed.

Labour Markets

One of the more prominent issues with regard to the clothing industry relates to the price of labour. The concern of industry managers around the wage rate is reflective, more generally, of the national debate on wage restraint in particular and labour market flexibility in general. The available secondary data show that the average monthly wage in textiles is R1968, while the figure for clothing is R1377. These are wages as of June 1996, but note that the figures include all workers, across all occupations. Clearly the mean wage for machinists is likely to be much lower. This study's survey revealed a significant variation in the contribution of wages and salaries, represented as direct and indirect labour, to total costs. The range for the sample was a low of 8.7 and a high of 37.1 percent. A rough mean of 23.4 percent suggests that on average, close to a quarter of total costs are represented by wages and salaries in this select group of formal sector Western Cape clothing firms.

Employers were unanimous in the view that labour market flexibility, their first preference, did not mean wage restraint. Instead it meant greater freedom in employment practices, while continuing to maintain the prevalent institutional arrangements for negotiating wages and other conditions of employment. Rigidity was manifest in labour legislation and buttressed by an active union movement. Firm owners interviewed felt that the inability to hire contract workers for longer than three months militated against greater hiring flexibility. The form of flexibility that the majority of firms interviewed wanted was one in which all or almost all their workforce could be hired for periods which they as employers would determine. This is not the classic labour market flexibility demand, which revolves around wages being determined without any institutional intervention. Instead, employers view autonomy in hiring practices as more important than being able to independently determine the price being paid for hiring these workers. Legal regulation of employment means that inefficient and unproductive workers must be kept on, and in times of poor sales, workers cannot be laid off. Being a particularly volatile industry, which is highly seasonal and also subject to the demands of a dominant retail sector, makes this rigidity in hiring and firing of workers problematic for management. The form of flexibility that the formal manufacturers desire is precisely what informal clothing producers are practising. Many of the informal firms, it was felt, were able to thrive because of this lack of labour regulation.

Wages were viewed by managers as only one, and perhaps even a relatively minor, element in what they perceived to be a rigid labour market for clothing firms. There was no opposition to paying full wages and benefits to contract workers. This is not to say that employers were content with current wage levels, particularly in comparison to East Asian competitors. However, in the main, the problems around flexibility did not revolve around wage levels. Employers ranked dilution of contractual obligations as more important for flexibility in the labour market than lower wages. Indeed, some employers even felt that the union movement's wage demands had, in recent years, become more realistic.

A diffused demand for this hiring flexibility is one for flexibility in work categories. The example provided by one firm in this case, is being able to use an individual, employed as a sweeper to do another job such as loading a truck. Many employers claim that this, at present, is not allowed. This demand from employers is tangential to the important issue of recognition and development of skills and that of multi-skilling, which will be dealt with in more detail below. Essentially though, the ability to shift workers between tasks while on the job would seem to be a component within the overall demand of greater flexibility in hiring.

The above arguments on flexibility emanate largely from the clothing industry. The textile firms interviewed in the Western Cape, did not present any forceful arguments for enhanced flexibility in hiring practices. The nature of the industry, as is well known, is such that firms must account for large costs each time the machinery, such as the heaters and dyeing machines need to be started up. Hence public holidays and other work stoppages induce large daily starting-up costs to the textile mills. The firms in the Western Cape viewed greater labour market flexibility as being represented by a move toward working 24 hours a day, 7

days a week shifts, with the most optimal being a 360 days a year operation. The claim is that East Asian mills have always operated this way, and global competitiveness requires this flexibility. Flexibility, then, in the lexicon of the textile mill owners, is manifest in a greater number of shifts to realise greater output and hence lower fixed costs. The second-round effect, it is claimed, would be an increase in employment levels, required to facilitate the increase in shifts.²⁹

A common problem raised by almost all the clothing manufacturers and to a certain extent by the textile owners, was the high rate of absenteeism. The legislative reason was viewed to be the provision for 10 days of paid sick leave, which has only recently been negotiated between the Clothing Federation and SACTWU. The effect of the law it seems, has been to increase the rates of absenteeism as workers ensure they take the full quota of paid leave days per year. The figures gleaned from the survey show that rates of absenteeism range from 4 to 18 percent. Some managers claimed that it was highest on Monday and lowest on Friday, the latter being the weekly pay-day. The problem, firms claimed, was not so much that the wage had to be paid for the day missed, but rather that production time was foregone during which overheads had to be paid for, resulting in higher unit costs and hence lower productivity. A specific, rather obvious example, would be if a machinist stopped work in the middle of producing a garment, and the garment had to be finished by another worker. It is possible that the replacement worker may be just as efficient as the first worker, but in many cases, it is said, the replacement is not as good and the quality of the garment is then forfeited. In this way, higher rates of absenteeism are said to upset production patterns and may also reduce the quality of the final garment.

There can be no doubt though that in the clothing industry, the high rates of absenteeism are a function of the nature of the workforce. The workforce is of course predominantly female. The reality is that most of the workers in the clothing industry are either mothers, wives or both. Cultural and social traditions necessitate that these workers are both housewives as well as first carers of their children. Indeed, many managers recognise the burden of duties that many of the workers have to endure. In this light, the rates of absenteeism in some firms can be deemed to be relatively low. From a management perspective, though, it remains a moral hazard problem, in that it is not always possible to know whether workers do really require leave or if such leave is not warranted. The option of 10 days paid sick leave then can be viewed, in many cases, as the time taken by clothing workers to deal with pending home duties. The costs to the firm though cannot be doubted. One firm interviewed has started an incentive scheme linked to attendance rates. The firm offers two weeks of pay at the end of the year to any worker that has been on leave for less than three days. This offer is probably indicative of the strain placed on firms through high rates of absenteeism.

Incentive schemes have been in place at some time in most clothing firms interviewed. There seems to be a general consensus though that these schemes are difficult to manage, and often induce negative reactions from the workforce. A clothing manager interviewed eloquently pointed out that for a bonus scheme to be effective, it had to be valued at between 20 percent to 25 percent of the base wage of the said worker. Poor sales and wage pressures though, he said, made it very difficult for his firm, and they were forced to offer a bonus that in effect stood at approximately 10 percent of the base wage. The result then was an incentive scheme that failed because the value of the bonus offered was not sufficient to induce greater effort from the workforce. A more complex problem with an incentive scheme based on output lay in the type of garments being produced. It is obvious that certain garments are harder than others to produce, and individuals working on more difficult patterns, will be less likely to achieve the targets required for a bonus. A related problem here is when workers are given an incentive according to a designated team. In this case the free rider phenomenon arises, with some workers not working as hard as others, but still receiving the bonus.

The above complexities have led many firms to stop offering bonus schemes at all. Other firms, on the other hand, have opted for an annual bonus based on a composite set of indicators. Hence one firm interviewed

²⁹ A textile firm manager interviewed claimed that calculations he had made, put the increase in employment from a 360 day a year operation at 14% to his particular firm.

said it provided a discretionary bonus that was weighted according to attendance records, performance, length of service and the number of jobs regularly handled by the worker.

An ongoing issue in the clothing and textile sectors, and indeed in the national economy, is that of intra-sectoral training schemes and skill levels. There was general agreement in both textile mills and clothing factories, that the overall skill levels of the South African workforce was good, and many admitted a favourable comparison of these skills with those possessed by East Asian workers. In most factories interviewed, the hiring of a production worker was followed by a period of in-house training. There was a close link between the intensity and length of this training and the type and range of garments that the firm produced. Hence, producers of a wide range of high-quality garments would have a much longer period of in-house training than a low-quality producer or a manufacturer of relatively basic garments. For example, a local firm producing ladies underwear, which involves very fine and detailed work, has an in-house training programme which lasts for 3 months. There were some accusations levelled by bigger firms that smaller competitors hired their workers once they were trained, though this was not a common perception. Further up the occupation ladder, many firms felt that South Africa's design skills could be improved, and were not good enough for an industry wanting to be globally competitive. Firms complained of not being able to source designers that perfectly suited their needs, and, furthermore, of how the training programmes for designers were not good enough. For the best training as a designer, one firm owner argued, one had to go to Leeds.

There is also an important debate between the union movement and clothing and textile firms concerning the recognition and development of skills. The union movement argues that managers need to recognise that production workers very often do have a wider range of skills than only those used on the job. For example, a machinist may be employed simply to fix buttons to a garment, but very often the worker will be able to sew an entire garment together, but these skills are not utilised on the job. Another example would be for the job description of the machinist to include the fixing and maintaining of the machinery they work on. In essence the demand from the union is for a workplace based on multi-skilling. All factories interviewed knew what the concept entailed, but very few had in fact undertaken any form of multi-skilling. A clothing manufacturer interviewed had started an experiment with multi-skilling, where workers worked in a team with no supervisor. Tasks were rotated regularly, hence the multi-skilling component. In addition, by working in a team, there was a camaraderie which, the interviewee argued, created the incentive not to let the team down and to produce quality garments. The experiment, thus far, has yielded a performance on par with the firm's upper-average in production levels. The firm intended to increase the quantum of team work in the near future.

While the attempts at multi-skilling amongst production are one of the core issues in the area of skills and training in textiles and clothing, many managers pointed to the need to improve the skills of South African managers. A textile firm manager spoke of the inefficiencies in management and lack of expertise. The firm was experimenting with a team based approach to managing and had instituted the Top Quality Management concept, which relied on flattened hierarchies and working in problem-solving units. While there were hiccups, the manager claimed a great improvement in productivity and efficiency as a result of the new system.

In the national economy, one of the major constraints is the economy's low savings rate, which appears even more abysmal when compared to East Asian economies. One of the more consistent statements amongst both clothing and textile manufacturers was the lack of savings culture amongst the workforce. This was particularly apparent given the recent spate of closures in the clothing industry. The argument from managers was that when they offered work to recently retrenched workers, many refused, saying they would wait until their retrenchment package money ran out. For managers this was, correctly, indicative of a workforce that did not want to save. Many firms also had in-house savings schemes, which they bore the administrative costs for. The problem though, was that many workers simply saved until the end of the year, before drawing on their salaries for the Christmas period.

Technology Acquisition

While the clothing industry is relatively labour-intensive there are significant investments in capital equipment required. It is clear though that most firms interviewed have, in the last five years, only made the minimum investments in capital equipment. Some firms did undertake large purchases of new machinery prior to the country's first non-racial elections, but have not upgraded since then. Certain firms in the sample were considering a renewal of capital stock, and this may reflect the demands of global competition or simply a standard sequence in the cycle of capital stock renewal. The view held by most manufacturers in the industry is that new machinery reduces unit labour costs by raising multifactor productivity. An example is the purchase of a machine that automatically cuts off excess thread, thus avoiding the use of an extra individual to do the job. This result of course is an increase in productivity due to the purchase of the new machinery. Many firms interviewed claimed that a major constraint to international competitiveness has been the lack of capital investment. New, sophisticated machines many interviewees argued, would increase productivity manifold and would assist in reducing the costs of producing garments.

While the change in capital expenditure has been rather low in the clothing industry, the existing capital equipment in the individual factories is large. Capital equipment in the firms interviewed has been valued at between R3 million and R60 million, which is indicative of an industry that is firmly entrenched in the local economy. This fact remains an important reason for the resilience of the clothing industry in the Western Cape: large, long-standing firms are unlikely to close down if only because of the significant scale of finance invested in the form of machinery and capital equipment in scores of factories around the country. This would continue to be a strong reason for remaining in the industry despite its very low returns and the general decline in sales.

The textile industry is course more capital intensive than its downstream counterpart. The firms interviewed revealed a strong necessity to upgrade their capital base to ensure competitiveness. The urgency to upgrade was clearly greater in this sector than in clothing. A number of the textile firms interviewed intended on major capital upgrading exercises, purely to remain on par with international competitors. These investments, very often by the holding companies who may be local or foreign, are again revealing of the future of the industry. There are significant existing investments in these individual mills, and given that the option of selling these mills is not a viable one, these mills need to be made as competitive as possible. Hence the investments in more sophisticated machinery is reflective of an industry trying to survive since the erosion of highly protective quotas and tariffs.

Machinery purchased by firms is very often in principle similar to, or in fact the same as, the existing old equipment. In this case, no foreign or new labour is required to teach workers how to use the machine. However, one firm interviewed did buy its machines from Germany, and when doing so temporarily brought out a German 'machinist' to install the machine and to pass on his skills to the local workforce. The firm felt it was worth their while to do this, even though, as they stated, they could over time learn how to use the machinery.

One of the most important considerations around investment is of course its price. Real interest rates in South Africa have arguably been very high, partly a consequence of the Reserve Bank's fighting against double-digit inflation. In this case, then, one would have expected firms to regard the interest rate as the primary obstacle to increased investment. This did not seem to be the feeling amongst the interviewees though. Two firms in the sample argued that high interest rates curtailed their investment plans, but the majority did not view it as a significant barrier to investing. Many firms viewed the future potential in the industry, manifest in their own orders, or the orders of competitors, as the primary determinant of whether or not to raise investments and improve technology. Those that did loan money, did so from local banks. Accessing finance from foreign sources is non-existent, given South Africa's highly developed capital markets and also the relative inexperience, even in the banking world, in borrowing from international capital markets. It is true then that this option has been under-explored thus far amongst local firms, and may be an avenue through which to gain cheaper finance.

Informalisation

One of the consequences of the erosion of trade barriers, and the resultant increase in legal and illegal imports of both clothing and fabrics, has been the dissolution of a number of formal clothing producers, and the rise of informal sector firms in the industry, particularly at the bottom end of the clothing market. There are possibly two reasons for this informalisation. The first would be the decline in the formal industry, rendering many machinists jobless. Hence, many of these workers go back into the only occupation they know, either as employers or employees in the informal sector. A second possible reason is that of trade liberalisation, which forced open what was previously a highly protected industry. These market pressures allowed informal clothing manufacturers to source fabrics independently either legally or illegally, and so challenge the dominance of formal sector producers. Of course, the very creation of these informal producers has a second round effect in the flourishing of informal traders in clothing, thus providing an ideal outlet for these manufacturers. Many informal producers are, more often than not, producers of relatively low quality and low value-added garments. An example of a garment widely produced in this environment would be tracksuits, which are relatively easy to sew and require a cheap, readily available fabrics. This type of production has created a niche, at the margin, for informal producers in the Western Cape.

The distinct advantage enjoyed by these manufacturers lies in employment and production practices. Given the near impossibility of detection by labour inspectors, it is claimed that most of these small producers are able to pay below the legal Industrial Council (IC) wage rates and in addition do not pay any benefits. Furthermore, employment is subject to availability of work, ensuring full flexibility in hiring practices. The informal firm's overheads are very low, given that very often production takes place at home, typical of cottage industries. Finally, working hours are completely flexible, with the machinists working according to client deadlines. If need be then, as one firm owner remarked, a 24 hour day can be worked when the need arises.

This completely informal sector exists alongside the more formalised labour brokers who have a very close link with formal sector manufacturers and indeed in some cases a direct relationship with retailers. These labour brokers or CMT operators generally pay the IC wage rates and abide by most labour regulations. But they have no internal designers, and in this way all they sell is their labour, hence the term 'labour brokers'. Most CMT firms have labour costs accounting for between 70 percent and 80 percent of total costs. In the case where other clothing manufacturers supply CMTs with work, it is often the surplus production that these formal firms outsource. There is strict control by these formal sector firms though, given the often stringent demands from the retailer with regard to quality, delivery dates and so on. Indeed one firm interviewed produced its own in-house brand and also did work for a major retail chain. This firm never outsourced the retailer's work, preferring to have its own label clothing be outsourced. This is as much a reflection of the dominance of the retail sector, as it is of the quality of work in many CMTs. Many firms also refuse to outsource what they perceive to be difficult or new designs, where the control over quality and the supervision needs to be much tighter. With outsourcing, this kind of supervision is very often foregone. It is true though that for those firms that outsource regularly, they need to employ quality controllers, that are continually supervising the work being done by the CMT operators. Many firms though admitted that there was an element of self-preservation in their relationship with the CMT operators. Should they outsource large portions of their work to the CMTs, then in the long-run the retailer would prefer to go directly to the source, thus avoiding the formal sector manufacturer. In many cases though, it seems that high quality CMT operators are hard to come. It is true though that the existence of sizeable CMT sector, offers many firms an alternative to cumbersome production patterns and perceived labour market inflexibility. This issue will be explored later on.

An important aspect of the way many CMT operators run their business, is that given the seasonal volatility in production they are either in boom or valley periods with their orders. There is no real steady or equilibrium production level. Some of the interviewees have argued that it may be useful to consider the option of CMT operators sub-contracting their work in times of a boom. In other words, this is a suggestion for sub-sub-contracting between formal sector firms, CMT operators and the informal firms. In this way, employment can be created at the bottom end and further, the segmentation amongst these producers could

be closed. Many other interviewees felt though that the existing informal sector firms did not have the capacity to take on the type of work being done even by the CMT firms. In addition, CMT operators themselves did not find this an attractive option, as it was felt that the principal would eventually then go directly to these informal producers, and so omitting them in the chain. This is of course another variant of the need for self-preservation in the industry. Finally, the future of the industry will be partly manifest in the proliferation rate of these informal producers: higher clothing employment losses will see many individuals entering this informal sector, and the less work coming to CMT operators could see them reorient themselves to the low-end of the market, and in the informal sector.

From the above, it is clear then that the clothing industry is segmented into three components. The first would be the formal sector producers who have their own designing capacity, licensed labels and sometimes also in-house labels. The second segment would be CMT operators who simply produce garments, for either chain retailers or formal sector firms. The final segment, namely the informal producers, are borne largely out of a changing trade policy environment and the downturn in the industry. This cottage industry produces garments at the low-end of the value chain and target primarily flea markets for their outlets.

Downstream Issues

Apart from the above segmentation within the clothing industry, there is also a particular relationship between the clothing industry and its downstream and upstream counterparts. Hence, this section will attempt to outline the relationship between the clothing manufacturers and textiles mills on the one hand, and clothing producers and retailers on the other. As will be clear, these are relationships fraught with difficulties which ultimately may impact on the price and competitiveness of local garments.

Textile-Clothing Linkages

The relationship between clothing producers and textile mills is often beset with accusations from the clothing manufacturers that the mills are inefficient and are often the cause for delays in production. This means, claim clothing producers, that they often have to complete the order in a very short space of time as retailers are ruthless in the face of delays, and will cancel should it be even one day overdue. This is even more likely to be the case, interviewees claimed, if retailers see that the garment is not selling well in their stores. It has been argued that the failure to operationalise just-in-time (JIT) strategies in clothing firms is in large part due to the inefficiencies and delays in the supply chain. One textile mill interviewed did admit that they had a bad reputation for late delivery times. However it was argued that clothing manufacturers were naive about the process of fabric production. They needed enough lead time with regard to the choice of colours for the fabric, for example, which was not always the case. In addition, the fabric production process was far more complex than that of clothing, and this explained much of the delays experienced. It is true though, that many garment manufacturers were adamant about the inefficiencies amongst local mills, to such an extent that some local producers have resorted to importing some of their fabrics.

In the development of the fabric though, it is true that about 70 percent of the development takes place at the textile end with the rest of the value-added on the fabric being in the clothing industry. For this reason, and given the stringent demands of the retail industry, there is often a direct relationship between the textile mill and the retailer. In most cases, the textile mill needs to gain approval from the retailer before the fabric can be passed on to the clothing manufacturer.

Within this environment of claimed inefficiencies, some of the textile mills have begun to institute changes in their production patterns. Many of the mills interviewed spoke of the need to move away from the production of basic fabrics. In this market, their Asian competitors were able to offer fabrics at much lower prices. Hence there is a realisation amongst textile producers that they need to begin producing higher value-added fabrics, with more complex dyeing and design requirements. Part of the move to more sophisticated fabrics is of course the upgrading of technology and equipment, an issue dealt with above. Mills then would need to focus on smaller volumes where the turnaround speed is very quick. Given the geographical proximity to the local manufacturers, these mills could then have an advantage over the East Asians, who would need to transport their products over a long distance. In the USA the lead time for textile

manufacturers is about 56 weeks, while in South Africa an interviewee confirmed, the present lead time stood at one month. Textile mills should be looking to halve this lead time to two weeks.

The above suggests that textile mills have problems in three primary areas: Firstly, the evidence shows that mills do not deliver fabrics on time, and they are also very slow to react to short-term demands from manufacturers. In addition, mills have not yet made the transition to producing high-end fabrics, and still produce large volumes of the cheaper variety, where there is no growth potential, given the very low prices of the East Asians, who are easily the cheapest in the world. Mills generally, have a bad reputation with clients, and service to the clothing manufacturers seems to be very poor, such that local firms sometimes prefer to source their fabrics overseas, despite the higher cost, as these suppliers are more reliable.

Essentially then, the textile mills need to enact changes on three fronts, if they are to withstand the challenge of liberalisation: First, delivery delays need to be minimised, to create more certainty and reliability in the supply chain and this would involve quicker turnaround speed and shorter lead times. Second, mills need to start producing higher quality products in order that they may stop competing purely on the basis of price. Finally, there needs to be an overall improvement in the standard of service to clients, so that local customers can be won back, and new buyers sought out.

Linkages to Retailers

Probably one of the most salient features of the Western Cape and indeed the South African clothing industry is the dominance of the retail sector in the pipeline. Most of the clothing firms interviewed had either a chain store retailer or independent (but prominent) retailers as their primary clients. It was with the former client that this dominance was manifest. Clothing firms preferred business with the independent retailers as they had more flexibility with regard to the mark-up on their garments. Hence there was more profit to be made with the independents. Whereas the mark-up in the case of chain retailers was 4 percent, for independents it could be as high as 30 percent. Independent retailers are niche sellers and hence they demand high-quality nice garments. The production for these clients then is low-volume, high quality and very often high mark-up for both producers and sellers. One firm interviewed maintained their chain store business at 30 percent of total sales, viewing any increase in this share as a loss in their independence and a decline in their profit levels. The one problem though with independent retailers, it was claimed, was their late payments for products already delivered to them.

Almost all clothing manufacturers though had a chain retailer as one of their customers. Chain retailers bring high volume and large turnover for the manufacturer. The problem though is that the relationship is very uneven, with retailers very often being able to determine the price they pay, delivery dates and so on. An indication of this power imbalance is manifest in the net returns in clothing as compared to retailing: in the former it is about 4 percent as mentioned earlier, while for retailers it is between 150 and 210 percent. Part of the reason for the power of retailers is their control of the consumer market. One interviewee estimated that the five largest retailers in the country accounted for about 70 percent of total clothing sales. Given this, it is expected that the clothing manufacturers inevitably depend primarily on the business of a few, very large, retail chains. This allows retailers the leeway in setting prices and being stringent on quality and delivery dates. In many cases, the production of a garment takes place with close supervision by the retailer. From the development of the fabric, to the design and final garment manufacture, many retail chains try to ensure that they are intricately involved. Some firms interviewed point to the fact that retail dominance was a world-wide phenomenon, and as manufacturers they had to work within the system. Some producers though have opted out of the control from retailers, and entered the retail end of the market themselves. For most manufacturers this is a very risky option, with failure at the retail end in all probability meaning closure, as other retailers would be unlikely to re-approach the firm. A major producer in the Western Cape has made a huge success of this move into retailing, enough to make at least one medium-sized firm that was interviewed, to consider the same route.

Some have argued that the retailing industry, by squeezing manufacturers on prices, are destroying their own supply base. Due to low returns, it is argued, firms will be unable to upgrade technology regularly let alone

expand their business. By offering slightly higher prices to producers, it is argued, the retailers can be ensured of a more productive, efficient and essentially more competitive local clothing industry. However, it is true that much of the lowering of prices has emanated from increasing competition from East Asian producers. Indeed some have argued that the future will witness retailers having agents in all the clothing producing centres of the world, to source the cheapest and highest quality garments for local consumption. The challenge for local manufacturers then is to be able to produce, seasonal, high value-added garments, that can compete with the East Asians on price and quality. The added advantage for these kinds of garments is of course distance, meaning that retailers often need the items within a fairly short period, and local manufacturers can provide this more easily than the Asian producers.

Competitiveness Strategies

The above provides an important signal as to the possible future of the clothing industry in the Western Cape. Non-seasonal goods that are all-year round such as socks and underwear, are by and large more cheaply sourced from the East, leaving most local manufacturers in this product line with an extremely tight and competitive market. Seasonal or fashion garments, particularly at the mid- to high-end of the market would seem to be the primary niche for clothing manufacturers in the Western Cape. This means that garments of high quality, using good fabrics would need to be combined with efficient deliveries, given an existing distance advantage. What this means then is that within the next five years, as the WTO agreement comes into effect, and manufacturers feel the full brunt of the Asian producers, the firms that will remain will be those producing at this mid to high end of the industry, together with those who are producing internationally recognised labels under licence of any type of garment. It means then that over the next few these marginal clothing producers at the low-end of the market will in all probability be forced out of the market.

Specialisation vs. Integration

The above represents something of a calculated prediction given the information we have. Many clothing and textile firms though, recognising the changing environment are either intending to or have already instituted intermediate steps to transform their firms. There would seem to be three paths considered by firms to ensure this transformation. The first is that of buying forward or backward into the supply chain. The second is that of outsourcing all work, and existing only as a design house. A final option, already being pursued by some of the bigger clothing firms is that of moving production facilities into the Southern Africa region.

Buying downstream or upstream in the chain has already been discussed above in the case of clothing firms buying into the retail end. However, it is true that a local textile mill has been considering buying into local cotton fields. This again creates economies of scale and also engenders certainty and efficiency in the supply base. The second alternative of setting up purely as a design centre has been seriously considered by numerous firms interviewed, and at least one firm interviewed had already taken the step. The reasoning is that most of these formal sector firms either work in tandem with chain retailers or work independently to create their designs. All would have full-time designers working for them who make regular trips abroad to glean the best designs for each season. Instead of having to deal with the added problems of labour inflexibility and the obvious problems with an in-house factory, there is a temptation to hive off the entire production base and opt for a pure design centre. The production would then be outsourced to CMT operators. A firm interviewed though claimed, correctly, that one had new problems in the form of quality control, and ensuring no delivery delays. Essentially, the problems with CMT operators experienced by the formal sector firms would occur on a large scale. The other danger of course, is that retailers, who often have their own design teams as well, may opt to overlook the design teams of the manufacturer and go straight to the CMT for the production. Design houses could then offer to retailers not only their own designs, but also the ability to act as quality controllers over the CMT operators, given that production of clothing is an expertise retailers cannot claim to possess.

The final option of moving production into Southern African countries such as Zambia, Mozambique has already been undertaken by some firms. A firm interviewed that had already moved into the region, claimed

that the benefits to moving were fourfold. There is the obvious benefit of labour costs being at least 20 percent less than those in South Africa. Fabric duty in many of these SADC economies is zero, offering the firm a 22 percent fabric cost advantage relative to South Africa. In addition direct costs to the firm work out to at least 20 percent less than those in South Africa. Finally, the country the said firm found itself in, had Export Processing Zones (EPZs), meaning that no corporate taxes needed to be paid. Firms that have been into the region appear to be satisfied with the experience thus far. Some of the problems encountered though include a workforce that, while cheap, is not as skilled or experienced as the South Africans, in producing garments. Hence, fairly significant, training costs need to be accounted for when setting up in the region. Transport also appears to be a problem, with the poor infrastructure militating against easy and efficient delivery. In addition, the distances themselves, to South African ports are fairly long, again making it hard to maintain a quick turnaround speed. Some of the other additional costs include the maintenance costs of managers from South Africa that are in these countries. Very often they will want medical treatment in South Africa, and that their children be sent to the best schools in the country and so on. In other words, the costs attached to managers of these factories are much larger than they would be in South Africa. This is aside from the real difficulty of attracting adequately trained managers in to these regions. Running costs of the factory can also be high, as inputs all need to come from South Africa, and should there be a machine breakdown, the required parts would need to be flown in, due to delivery pressures, from South Africa. While the costs associated with moving production facilities into the region are high, and seemingly difficult to reduce in the short-run, some large producers in South Africa and at least one in the Western Cape have made the move across the South African borders.

Trade in Inputs and Outputs

The South African clothing industry as is well known, was highly protected, and as a consequence was never geared to the export market. The move to tariff liberalisation and opening of potential export markets to these producers then, provided a new and largely unknown challenge to the local manufacturers. Most firms spoken to did have the intention to, or had already begun to export their products. In the main, exports markets were in the West, and to a certain extent in the rest of Africa.

Perhaps the foremost problem about entering into export markets, was that manufacturers were entering into a market that invariably already had an established supply chain. One firm owner pointed out that although we were about 5 percent cheaper than, say Morocco and Turkey in clothing, a foreign buyer is unlikely to change suppliers and opt for South Africans, when there is nothing that assures him of the quality of these new exporters. Hence, the risk averse route is taken, and the original producers are maintained, with whom there have not been any significant difficulties in the past. The lack of information about the new South African clothing exporters means that most foreign buyers are not aware of the experience and wealth of knowledge in clothing in the country. If one combines this very closed international market, with the reality of a depressed global market in clothing, the difficulties of breaking into export markets becomes more apparent.

Most firms interviewed, who were producers in the local mid to upper-end of the market, were of the view that the problem in export markets was not quality or service related but rather hinged on the cost of our garments. It was felt the foreign buyers invariably had no problems with the quality of their garments or the ability to delivery on time. Some manufacturers though, admitted that their delivery runs were too long for some buyers. For example, a producer of ladies fashion wear tried exporting to the USA, but was informed that apart from the price being too high, the six-month delivery runs offered were too long. The U.S. buyer opted instead to source garments from Mexico -- another example of the importance of distance and regional trade agreements in determining trade flows. At least two manufacturers did claim that the volumes asked by the foreign buyers were too large for them to meet. The one firm was a CMT operator and the other a high-end formal producer. Both firms claimed that the buyer was happy with everything including price and delivery times, but the firms were forced to refuse the order given its size. The constant argument that foreigners perceived prices to be too high, is all the more disconcerting given the low mark-ups already existent on these products. There can be no doubt though that the price disadvantage emanates from the costs of production such as raw materials and both direct and indirect labour. While the firms interviewed

constantly placed these two items as the primary cause of high costs, the financial and economic analysis section below tests this assumption using financial cost information from these firms, and employing Domestic Resource Cost analysis.

One the significant costs of exporting or trying to initiate an export drive is that of obtaining a good and effective agent in the destination country. These are one of the important transaction costs incurred in trying to cultivate export markets. These agents would be employed by the local manufacturer to try and sell their garments to retailers in the destination country. These agents are not paid purely on a commission basis, and hence the costs to a firm that does not get any orders, of employing such agents, can be extremely high. There is of course the likelihood that a firm trying to export for the first time, may link up with an ineffective agent, again making the exercise very costly. This had already happened to at least one firm in the survey. For many of the smaller firms then, these costs associated with simply exploring possibilities in foreign markets, serves as an obstacle to accessing these untapped markets.

Some of the problems with entering a new market, as mentioned above, is simply getting one's product to be seen and accepted as a quality piece of clothing. For many producers in the Western Cape though this is not necessary, given their production of internationally recognised labels under license. Of the firms interviewed, many had licences for labels in underwear, men's shirts, men's suits, casual wear and so on. Very often these labels provided for a captured market into most of Southern and Central Africa. Given the label, manufacturers would not need to advertise the garment in any way. The problem though, as most producers have found, is that the African market comes with its own problems. The most common complaint is that of delayed or lack of payment by banks in Africa. The second, more general problem, is that of very low earning capacity in the region. Given this, the potential to expand and grow and export market in Africa, is extremely limited, particularly in these label, high-end garments.

Trade legislation governing the clothing industry was severely criticised by both firm owners and union representatives. All firms were unanimous about the importance of GEIS and the DCCs to maintaining their competitive edge in export markets. The termination of GEIS, many felt would undoubtedly count against the industry. One large firm interviewed calculated that their future export volumes would have to be curtailed, as the removal of GEIS meant that export activity would yield a loss in revenue terms. Many have felt that the scrapping of GEIS for all sectors was wrong, given the very small portion of GEIS money that went to clothing and textiles anyway. There was also a claim that the uncertainty in the government's trade policy was not helping with their projections for exports. The changing of tariff schedules and that of incentive schemes, it was argued, made planning by firms very difficult. Indeed the DTI's decision to extend the DCCs, while welcomed by the clothing industry, is indicative of precisely this unpredictable policy environment. The role of trade legislation and the relevant authorities has come under particular scrutiny with the flood of illegal imports that have entered the country in the last few years. This issue is dealt with in more detail below.

Much of the above constraints to exports in clothing apply almost equally to textile manufacturers. For example, most mills trying to export, know that their market lies in the mid to upper-end, where the competition is on quality, service as well as price. The export of fabric though is also subject to a few different forces. For example, a country that does not have its own local clothing industry, is not likely to demand fabrics on a large-scale, and hence will import final products in the form of clothing. Hence textile manufacturers are often exporting to markets dissimilar to those of clothing firms. In addition, some textile mills are finding a market in niche products, such as fabrics required to make high-quality curtains in the destination country. This difficulty in improving export performance of textile products, may also be a reason for conglomerates buying into downstream clothing manufacturers, and so ensuring that their fabrics are used for clothing that can then be exported.

The flip side of the trade regime for promoting exports is that which has been designed to manage the flow of imports into the country. Western Cape firms were adamant about the negative effect of illegal imports on their business. While this was their primary concern, there can be no doubt that legal imports, with the tariff

reduction programme, had also affected many firms' orders and sales. This is true both for those producing at the low-end and mid-range of the market. Hence core clothing is often imported from Asia, while in many cases cheaper substitutes of mid-range items are being sourced from East Asia. For example, a local anorak manufacturer found that retailers were sourcing the same item more cheaply from Asia. The owner here did claim though that the quality of the imported garment was worse than that which was produced locally.

In the case of illegal imports the key problem would seem to lie with the Department of Customs and Excise (DCE), which is responsible for managing the entry of these imports. Thus far, it appears as if the DCE has been extremely inefficient in controlling these flows of illegal garments and fabrics, and part of the reason for this seems to be their lack of autonomy. A further problem is that if a consignment of clothing is seized, it is then auctioned off by the DCE. The result of course, is that the same individuals importing the products illegally, simply buy it again in the auction. Both firms and the union movement want this to practice of the DCE to cease, and instead for these illegal products to be sold off far away from South Africa, preferably north of the equator. as one interviewee remarked. The incentive for government, of improved enforcement in imports, is an increase in revenue by a substantial amount. Another factor in the state's administration of trade, is that of the DCCs, which have been abused by numerous local firms. There are a range of issues relating to fraud, certificate of origin and local content, that render the monitoring of DCCs, largely ineffective. Firms have taken then to fictitiously producing clothing in the Southern Africa Customs Union (SACU), and then gaining access to DCCs for this, when in actual fact, no clothing is being produced. For example, the volumes of clothing imported from Malawi outweighs the country's productive capacity, suggesting that clothing is being smuggling into South Africa via Malawi.

The final issue of relevance to the country's trade regime is the nature of tariffs governing imports. Both clothing and textile firms felt that a more uniform, less complex tariff structure was required. Of course the more ineffective the monitoring of imports, the less meaningful is the tariff structure. Some firms have called for a single flat tariff rate for both clothing and textile products. It is both simple and predictable. In this vein, interviewees viewed the government's policy on a tariff phasedown as both unpredictable and poorly handled with manufacturers and retailers.

What needs to be remembered from the above is that the issue of imports of clothing and textiles, is perhaps one that unifies the union movement and managers. Both view the effective monitoring of illegal imports and incentive schemes, together with a predictable reduction in tariffs, as a first condition to ensuring the survival of both industries in the Western Cape.

The Textile and Clothing Industries in KwaZulu-Natal³⁰

The clothing sector is the largest employer within KwaZulu-Natal's manufacturing sector. This fact, coupled with the relatively low barriers to entry in the industry, makes it a very strategic industry for development purposes. However, clothing is a threatened sector. With government having agreed to a *slower* rundown on tariff protection on textiles than initially envisaged as part of the commitment to WTO, unanticipated negative consequences for the clothing industry may be felt.

Because the reduction in the price of textiles (the major raw material in clothing) may happen at a slower rate than the reduction in the market price of clothing, costs of production could increase. Thus, the existing comparative advantages that some firms have in clothing manufacture could all but disappear, especially in light of more competitive Far Eastern producers.

Limited opportunities are created for South African exporters by the international quota system, now being phased out under the ATC as described earlier, which limits exports into industrial importing countries. Foreign (e.g. Taiwanese) firms give some export quotas to South African firms because they have filled their

³⁰ This section draws heavily (with permission from Julian May) on Harrison and Morris (1996), as well as Government of KwaZulu-Natal (1996).

own export quotas. These foreign companies bring fabric (usually under rebated duty) into South Africa, for re-export.

There are, however, segments of the clothing industry that do not compete merely on the basis of prices or by tapping into export markets via quotas imposed on Far Eastern countries and are potentially competitive. Higher value-added clothing produce with short production runs in the fashion industry, for example, is a market segment in which competition is on the basis of quality and responsiveness to change. There are niches within this market segment (e.g. African ethnic fashions) where innovative and adaptable South African producers can be export competitive. However, it appears that only those firms that have the resources at hand to acquire information about niche markets can take advantage of this sort of competitive edge. Usually these firms tend to be much larger³¹ than usual, with access to a network of similar manufacturers, or alternatively, are already doing relatively well.

Indeed, many clothing producers will not be able to secure a niche in such markets and will have to compete broadly in the mass clothing market on the basis of price. This is particularly true of producers at the lower end of the market (i.e. CMT). Here the wage rate is a critical and highly contentious issue. To remain competitive many clothing firms have historically decentralised to locations of lower wages and less unionised labour. While good for job creation, employment practices within these areas are highly unsatisfactory and the low wages paid in such localities are arguably highly exploitative.³²

Current Trends in KwaZulu-Natal

This section describes some of the findings of the fieldwork conducted in the industry. What follows will be a brief description of some of the results obtained from the interviews undertaken. These broad observations are meant to feed into the process of creating ideal firm typologies and will later be fed into the quantitative analysis.

Methodology

Table 34 shows that approximately 60 percent of manufacturing in KwaZulu-Natal takes place in the DFR, and most clothing and textile firms have been located here in the past. Consequently, the bulk of interviews were conducted with representatives from clothing firms in the DFR.

Table 34: Distribution of Manufacturing Employment in KwaZulu-Natal (1988)

<i>Magisterial District</i>	<i>Emplo y %</i>	<i>Output %</i>	<i>Industry specialisation</i>
Durban	40,4	44,7	<i>Food, textiles, clothing, chemicals, motor vehicles</i>
Pinetown	11,0	9,9	<i>food, textiles, footwear, chemicals</i>
Inanda	4,8	2,8	<i>food, clothing</i>
Camperdown	2,9	2,0	<i>textiles</i>
SUB-TOTAL DFR	59,1	59,4	
Pietermaritzburg	8,1	8,6	<i>footwear, food</i>

³¹ Obviously the word 'large' requires some qualifying and this will be dealt with shortly.

³² Wage parity between IC and non IC areas could reduce exploitative practices but is likely to destroy the clothing industry within these more peripheral areas as their competitive advantage would be completely eliminated. This dilemma is increasingly appreciated within SACTWU, with the union now pressing for a rural/peri-urban wage rate equivalent to 80% of the metropolitan rate. Whether 80% is sufficient to ensure the viability of the clothing industry on the provincial periphery remains to be seen. The Natal Clothing Manufacturers Association (NCMA) is divided over this issue with many of the smaller metropolitan-based firms (facing competing from firms located in places such as Port Shepstone and Newcastle) arguing for wage parity while firms in other areas are inevitably pressing for greater flexibility in wage determination and higher geographical wage differentials.

Ladysmith Ezakheni	5,2	2,6	<i>textiles, clothing</i>
Newcastle/ Madadeni	4,7	4,8	<i>basic metals, clothing</i>
Richards Bay/ Empangeni	4,2	9,1	<i>metals, chemicals, food</i>
Inkanyezi i.e. Isithebe	5,5	2,7	<i>clothing</i>
Estcourt	1,7	1,8	<i>food, textiles</i>
Port Shepstone	1,5	1,0	<i>food, clothing</i>
Thirty eight other districts	10,0	10,0	
TOTAL	100,0	100,0	

Source: Harrison (1995)

Findings³³

Firm type and size

Of the thirty-seven firms visited, fourteen were involved in CMT production only, while the remaining twenty-three specialised in garments for own production. An interesting feature was that some CMT firms did a little of their own work on the side but this constituted only about 10 percent of their activities. Most of these firms expressed a desire to expand their own activities but cited lack of access to finance as the major obstacle. From another perspective, one firm that produces its own garments has now leased part of its floor space to a CMT operation. The idea behind this was to ensure a constant throughput of garments, so they now have their own in-house CMT operation. However, this CMT firm is independent of its landlord. Finally, only seven firms did any kind of exporting.

In most cases, firm size and type seem to be correlated, as many of the small firms were purely CMT operations. CMT operations tended to be sole proprietorships, while firms involved in own specialised production were either partnerships, large integrated holding companies, or family businesses. Most small firms (fewer than 100 staff) said that 1997 had been a tough year, while the bigger firms seemed not to have been as badly affected. The bigger firms involved in own production seemed to be able to absorb the current status of the industry a lot better. This could be because smaller firms are a lot more labour-intensive, (in fact labour costs represented a higher proportion of total cost than for bigger firms) so they were feeling the squeeze. Interestingly enough, most firms, irrespective of size, complained that there were too many public holidays in the first part of the year, and that this seriously hindered production and dampened profits. They thought that the public holidays should be more evenly spread out over the year.

Box A: Two extremes of experiences in the clothing industry in the DFR

Firm A is a family business, established 35 years ago, which currently employs 600 staff, all of whom are unionised and receive Industrial Council wages. This firm supplies mainly chain stores, and has its own national clothing outlet or chain. This clothing outlet was set up a few years back as a safety mechanism to cushion the effect of any adverse events in the industry. Annual turnover is approximately R100 million. An in-house design team produces their own labels. They aim for a mark-up on garments of 35 percent, but average mark-up on garments is around 27 percent. They have over 300 machines, and their own in-house mechanics maintain these. Labour costs represent about 25 percent of their total cost, but they have plans to relocate to outlying areas in the next few years, in order to take advantage of even cheaper labour sources.

Firm B, a sole proprietorship, is purely a cut, make, and trim (CMT) operation, and was established 30 years ago. The firm has had very little business in the last year, and employees have had to work a lot of short time. The last few years have seen workers being retrenched. From an original staff of 50, the firm now has 15

³³ This discussion is based largely on the thirty-seven interviews carried out by Justine Burns and Malcolm Keswell. Initial response by firms to the idea of an interview was varied. However, resistance to the study was overcome by faxing a brief project description to the firm and then following it up with a phone call. The interview lasted between one and two hours, and was largely an open-ended discussion. The survey questionnaire was used as a means to guide discussion rather than elicit formal enumerated answers.

employees, of which only two are working full-time. The rest are on short time. All these workers are unionised and receive industry wages. In previous years, when this firm was profitable, they could choose what work they would take, and its profit margin was between 10 and 20 percent. Currently, they are in the position of having to actively go out and look for work, and they have to accept whatever price the client is willing to pay. As a consequence, garments are sometimes made at a loss. Annual turnover, which used to be in the region of R4 million, is now less than R200,000. Labour constitutes approximately 70 percent of total cost, and the owner is using personal savings and an bank overdraft facility to keep going. This is the diversity of experience of firms in the manufacturing sector in KwaZulu-Natal.

Area of specialisation

The firms we interviewed specialised in a range of different areas, including men and boys' trousers, "upmarket ladies outerwear", kiddies wear, surf-wear, formal wear, and knitwear. Bigger firms (>100) tended to be involved in the production of men's and boys wear, or standard kinds of garments that had bigger runs. Firms involved in own production tended to be fairly specialised. This was because they felt that the only way to survive was to try to locate themselves in some sort of niche market. Many firms involved in own production had a designer or design team. In most cases, designers travelled overseas to source new fabric and ideas, although the frequency of this varied. For firms involved in garments with standard patterns such as work-wear, men's trousers and shorts, designers travelled less frequently. These designers relied on local fashion shows and magazines for new ideas.

Short time, retrenchment and relocation

Most firms had worked short time in 1997, although the extent of this varied. Firms with fewer than 50 employees tended to have worked more than three days of short time per month. In one or two cases, small firms had only kicked into full production in May, 1997, and had been closed prior to that. Bigger firms had worked less than 3 days of short time a month. Larger firms involved in own production estimated that labour costs were between 20 percent and 50 percent of total cost, while smaller predominantly CMT operations estimated labour costs at between 45 percent and 80 percent of total costs. Consequently, it should be no surprise that it was the smaller firms who had retrenched employees in the last three years. However, most small firms said that they preferred to work short time rather than retrench workers. There was a very strong sense of duty on the part of small employers, who were conscious of the fact that many of their employees (predominantly women) were sole breadwinners in their homes. Few of the bigger firms had had to retrench, but they were also the ones who could afford to relocate to outlying areas if necessary. We also heard stories of firms being sponsored by their clients (mainly chain stores of wholesalers) to relocate. One or two small firms indicated that if conditions in the sector did not improve, they would consider going underground and operating illegally, but still be based in the CBD area.

The issue of relocation is an important one. Many firms operating in the CBD area, where labour is regulated, said they were finding it difficult to compete with firms that had relocated to outlying areas where labour is much cheaper owing to the fact that it is unregulated. Labour in these outlying areas is substantially cheaper (50 percent and 80 percent below urban standards, if one compares wage levels only). Benefits are usually not paid, thereby representing further savings. Government and the unions are currently tolerating this move. The union is trying to organize labour in these areas but accepts that this will take time. The Government's Wage Board produced a set of policy recommendations regarding this issue (Wage Board, 1997). However, while urban-based operations feel it is unfair that firms which relocate can take advantage of lower labour costs, they are not calling for a complete leveling of wages, but rather a narrowing of the wage differentials.

Training

Most of the firms relied on on-the-job training and had not used the industry training programmes. Smaller firms (<100) said this was because they could not afford to send their workers to training programmes. Bigger firms (>100) said that the industry training programmes were unsuitable and too theoretical. Another

concern was that once workers had been trained, another firm who could enjoy the benefits of the training without bearing the expense would poach them.

Productivity of workers

Opinion concerning worker productivity was evenly mixed, although CMT firms generally thought that worker productivity was poor, firms involved in own production thought their worker productivity was good. Smaller CMT operations said that because they had worked so much short time, their workers were demoralised and demotivated, but also tended to “go-slow” in order to stretch their work out to ensure they received a week’s wages.

Incentive schemes

Very few firms had any sort of incentive scheme in place, although all felt that a piecemeal system would improve performance. Reasons cited for a lack of incentive scheme was that it was too expensive and too complex. A few firms said they were considering incentive schemes but wanted to take their time in designing them carefully so that they were fair and efficient. Only the bigger firms had incentive schemes in place. One firm was trying to change from an individual-based scheme towards a group incentive scheme but said that this was being met with resistance by staff. Again, they were also experiencing difficulties in implementing a new system.

Hiring

Across all firms, hiring takes place on a word-of-mouth basis with new workers being given some sort of probationary period. Management style tended to be quite hands-on with managers spending a lot of time on the factory floor. Almost all workers were unionised and all firms were paying the industry-regulated wages. While firms paid their workers industry-regulated wages, a few expressed concern over the fact that they were required to pay a machinist with 30 years experience the same as a machinist with one year’s experience. They felt there needed to be differentiation within wage structures. Firms practised job rotation, and this was more prevalent among the smaller firms who felt that it was a necessity to combat absenteeism.

Outsourcing work to CMT operations

Many firms outsource work to other CMT operations. This is even true of CMT firms themselves, especially with larger CMT operations which outsource work such as embroidery to smaller CMT firms. Outsourcing is said to be an effective way to avoid labour problems and minimise overhead costs. This relationship points to an interesting *filière* effect and might highlight the pricing pressure effect which all firms said they were experiencing. Chains place pressure on wholesalers and own producers, who in turn place pressure on larger CMT operations, who in turn, place pressure on the smaller CMT to whom they are outsourcing some work. So the pricing demands are carried through but hits hardest at the smallest firms. This experience was highlighted repeatedly by the fact that smaller CMT firms are not able to mark-up their garments at all, and often produce goods at a loss just to stay in business and keep their name about.

Machinery

Machines tended to be financed on a hire purchase arrangement or through a cash settlement, with reluctance towards using bank finance especially by smaller firms. The age of machinery varied, but on average, machinery was between three and six years old. Interestingly enough, smaller firms (less than 100 employees) tended to have relatively newer machinery than bigger firms. There are two points to be made here. Firstly, smaller firms (CMT mostly), scrambling for business, have bought new machines in the last few years in an attempt to diversify into a new area in the hope of improving their business. For example, they might have received an order for jeans, and to take on this work, have purchased new machinery. The problem is, however, that these orders are often not repeated and so these firms find themselves with a once-off order, and then have to bear the burden of paying off their new machines for years to come. Secondly, because of the constant erosion of margins, bigger firms are ploughing their capital expenditure funds into the firm’s profits in an attempt to remain profitable. As a result, bigger firms have not invested much in machinery recently.

Most small firms used a freelance mechanic to maintain their machines or relied on the skill of the owner/manager. Bigger firms tended to have their own in-house mechanics to look after machinery.

Fabric

The source of fabric varied according to the kind of garments being made. Opinion concerning the quality of local fabric was varied but most thought highly of imported fabric quality. Those not using imported fabric, mainly smaller firms, often said it was because tariff structures made it too expensive to do so. Estimates on the proportion of fabric cost to total cost range from 35 percent to 55 percent. Hence, where fabric is a big component of cost, it is understandable that firms will try to minimise their cost in this area and be forced to use local fabric only. A few firms imported some fabric and trims from the Far East, even for garments manufactured for the domestic market. Other firms indicated that they were making more use of seconds of fabric in an attempt to cut costs. The average order size varied, with some of the smaller firms being prepared to accept an order of any size, while larger firms set a minimum requirement.

Turnover

Annual turnover varied, as did profit and loss. In general, turnover for smaller firms was on the decline from previous years, while bigger firms were experiencing moderate growth. All firms were experiencing “pricing pressure” – in other words, demands from clients for lower prices and better quality garments. All of our firms with less than 50 employees said that they had made a loss in 1996/7. Conversely, firms employing between 50 and 200 staff all recorded a profit. Firms involved in own production were able to mark up their goods, while smaller CMT operations were not.

Exports

As has already been stated, only seven of the firms interviewed were involved in exporting and barring one, these exports did not represent a substantial proportion of their business. Hence, these firms were the only ones that had any experience with GEIS or DCCs or other duty rebate schemes. The reasons cited for not exporting were that firms found local demand sufficient, and that they were not able to compete with international prices yet. One firm expressed concern that when the Southern African community finally agreed on trade in the region and barriers were removed, that South African firms would not be able to compete with its neighbours. Some firms indicated that while their costs or run sizes could be competitive for export, they are unsure of how to solidify contacts in overseas markets. Furthermore, exports are perceived by firms as being excessively complicated and few firms know how to access international clients. While some firms were interested in exporting, they felt they would have to employ a number of additional full-time staff to carry it out properly.

Information technology

Very few firms (about four firms) use information technology with any level of sophistication, making it difficult for them to track projects, materials, suppliers and customers in any kind of transparent way. Only the bigger firms had any sort of computer aided manufacturing system in place.

Conclusion: A Tentative Typology of Emerging Themes from KwaZulu-Natal

Manufacturing is important to KwaZulu Natal and clothing and textiles form a significant part of this. Despite the diversity of experience of firms in this industry, a few broad conclusions can be drawn.

- All firms are in favour of a piecemeal compensation system. However, few have incentive schemes because they are seen as too expensive or complex to implement. Firms need help in this regard.
- Few firms are exporting, and despite some interest, local demand is seen to be sufficient for the present. Furthermore, exports are perceived to be complex, time consuming, and requiring additional staff in order to be successful.

- The South African machinery industry is not developed at all. All machines are imported and sold through agents – is this a problem? Should we encourage local industry to get into machinery production for the clothing and textile industry?
- All firms are experiencing pricing pressure. As a strategy to survive, many firms are trying to locate themselves in a niche market.
- Employers are reluctant to retrench staff, especially in the smaller firms, where they have a strong sense of responsibility towards their employees and families.
- A few CMT operations do some specialised own production on the side, and express a desire to expand this area of activity. The major constraint they face is access to finance.
- Outsourcing to CMT operations is seen as a means of minimising overhead costs and avoiding labour problems.
- Firms find it difficult to compete with the flood of imports into South Africa (both legal and illegal).
- Firms located in the central business district areas, where labour is regulated, find it difficult to compete with firms who are relocating to outlying areas where labour, as of yet still unregulated, is a lot cheaper. Many firms feel that at the very least, government should try to decrease the wage differential between these areas.
- While firms pay their workers industry-regulated wages, a few expressed concern that they are required to pay a machinist with 30 years experience the same as a machinist with one year's experience. They feel there should be differentiation within wage structures.
- Job rotation is especially important in small firms, which need employees able to adapt to new operations in the event of absenteeism.
- Firms feel there are too many public holidays in the first part of the year, and these should be more evenly spread throughout the year.
- All expressed concern that prices are rising more slowly than costs, thereby eroding margins.

The situation of the clothing and textile industry in KwaZulu Natal needs attention by government. The days of a “one size fits all” policy need to be abandoned as it is clear that smaller firms face very different challenges and constraints to larger firms. Yet the voice of smaller firms is often not heard in national bargaining forums. If policy is to play a constructive role, then it must take cognisance of the rich diversity of experience within the sector, and tailor strategies accordingly.

VI. Profitability and Protection Analysis

Our surveys asked participating firms to provide us with detailed cost breakdowns for two or three of their main products. Most firms were willing to do so, however, the level of cost detail shared with us left much to be desired. Whereas units used per input and unit prices are generally preferred for the analysis in order to be able to compare efficiency across firms and across country standards, most firms only provided total costs per general budget line items. Thus, the analysis is perforce limited to profitability, protection, and comparative advantage analysis.

We have built spreadsheet models which present financial costs, i.e. costs as viewed by the firm, and compares these to the value of the output. Costs include the value of raw material (fabric and trims), labour (wage and salaried labour, or floor and management, sometimes broken out between actual wages and benefits), and overheads (including rent, utilities, finance costs, selling and distribution, packaging, transport). The difference is the mark-up, or financial profitability, of the production activity. In all instances, this is a positive figure.

These costs are then broken down into economic components. The financial cost to the firm of fabric, for example, consists of a tradable component (the CIF value of that fabric, were it imported, fabric being a tradable, plus the CIF value of the tradable costs involved in delivering the fabric from the border to the factory), a non-tradable component (the domestic resources expended in delivering the fabric from the border to the factory), and a tax component (the value of the import tariff). In our baseline analysis, we have applied current tariff levels, i.e. 36 percent on fabric and 26 percent on yarn and trims.

Wages are also broken out into tax (19 percent on wages, 30 percent on salaries) and economic (in this case, the residual value is treated as 100 percent non-tradable, i.e. labour is a domestic factor of production) costs.

Where specifically disaggregated by the firm, interest costs are decomposed into tax and economic cost components as well. The capital cost analysis starts with South Africa's capital borrowing rate of 21 percent, deducts a 10 percent rate of inflation, in order to derive a real rate of interest of 11 percent. This rate is compared with the U.S. prime rate of 8.5 percent, from which a 2 percent inflation is deducted, for a real rate of interest in the U.S. of 6.5 percent. Comparison of 11 percent and 6.5 percent suggests that borrowers in South Africa are currently paying about 40 percent above international rates for capital. This is treated as an implicit tax in the analysis.

A set of breakdown coefficients are thus estimated for each line item, and applied to the financial costs, in order to derive a set of economic costs which is the value of tradable and non-tradable inputs in the absence of taxes (or subsidies, if applicable). This is the cost the firm would pay if there were no government policies distorting the cost of inputs.

The total economic cost of production must be compared with an economic value of output in order to determine the economic profitability (or comparative advantage, when stated in ratio terms) of the activity. In the case of homogeneous commodities, the estimation of an international reference price is a fairly standard affair. The international price of maize, for example, is known from international financial markets such as the Chicago Board of Trade and from a number of international publications. The FAO, the World Bank, and the U.S. Government all publish FOB prices of standard internationally traded commodities. In the case of quite heterogeneous products such as fabric or clothing, however, there are no international price benchmarks. This analysis, therefore, assumes that there are no quantitative or institutional barriers affecting the entry of fabric, trim, and clothing into South Africa and therefore that the only relevant price distortion is the import tariff assessed by customs. The financial price of the clothing item cited by the firm is therefore adjusted for the 72 percent tariff assessed in South Africa today on clothing imports. For example, if a men's wool suit is sold for R400 at the factory gate, its economic cost is R232 net of the tariff. Its international cost

in dollars, assuming an exchange rate of 4.88 Rand to the U.S. dollar, is \$47.66. This, then, is the international reference price against which the economic costs of production in South Africa are compared.

Table 35: Financial and Economic Costs of Stylised Analysis (Men's wool suit)

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Source: AIRD survey, 1997

Note: "Tdbls" = tradables; "n-tdbbs" = non-tradables

Table 35 depicts financial and economic costs of production of a men's wool suit in South Africa. Materials represent about half of the total cost, labour is another 20 percent, and overheads, marketing, and finance costs are 30 percent of the final cost. Compared with a wholesale price of R400, the production of this garment is a financially profitable activity for the firm.

However, when pricing distortions are taken into account, economic profitability is negative. Raw materials costs are 36 percent higher than they would be in the absence of government policy, i.e. the producer is taxed on inputs. Domestic factor costs (wages and capital) are also taxed. However, this is swamped by the fact that the R400 financial value of output is 72 percent higher than it would be in the absence of government intervention. Thus the reference output price is actually R232. When compared with economic costs of production of R291, the economic profitability is R-58. The elements of the calculation are shown in Table 36 below.

Table 36: Financial and Economic Profitability, Protection, and Comparative Advantage

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This simple example illustrates how nominal protection on output can swamp the effects of nominal taxation on inputs. To consider the combined effect of protection afforded by policy on output *and* tradable inputs, i.e. the level of effective protection, we must compare the value-added (which is equal to the value of output minus the value of tradable inputs) in financial and economic prices. In the example above, this would be equal to $(400 - (133.81 + 46.32))$, or a financial value-added of R219.87, compared with $(232.56 - 133.81)$, or an economic value-added of 98.75. The effective protection coefficient is the ratio of these two, i.e. $219.87 / 98.75$, or 2.23. Thus the rate of effective protection is 2.23 minus 1.00, or 123 percent.

This level of protection is offered in the face of negative economic profitability. Profitability to the society at large can be measured in terms of Rands per unit output. However, when analysts try to compare the relative economic profitability of cars versus clothing, or of manufactured versus agricultural products, it is inconvenient to speak of Rands per shirt versus Rands per ton of maize.

Thus a ratio known as the domestic resource coefficient (DRC) was developed to compare economic profitability across alternative uses of domestic resources. It restates the terms of the economic profitability analysis (Value of output - value of tradable inputs - value of domestic resources) in ratio form, comparing the value of the domestic factors of production required to generate (if exporting) or save (if import substituting) a unit of tradable value-added, i.e. foreign exchange. The DRC is therefore equal to $(\text{economic value of domestic resources}) / (\text{economic tradable value-added})$. In this example, the ratio equals $156.76 / 98.75$, or 1.59. This DRC implies that it costs the South African economy 1.6 Rands of domestic resources to save one Rand by not importing the clothing item. The economist concludes this is not an efficient use of scarce domestic resources. A DRC less than 1.00 indicates that the economy is making an efficient exchange of domestic for tradable resources. Of all the costs examined to date, this pattern is the most typical.

There are many variables which can influence the outcome of this kind of analysis. For instance, the exchange rate can bias results tremendously. If the South African Rand is overvalued by a significant amount, then the conversion of the dollar amount we deduced in the above example back into Rands may yield an economic output price greater than R232. For example, a 20 percent overvaluation of the Rand implies that the reference price converted at an equilibrium value of the Rand (say, 6.1 Rand/\$) would be more on the order of R290, i.e. just equal to the economic costs of production. In this case, the DRC would be approximately 1.00, and the economist would conclude that the particular clothing manufacturing activity makes efficient use of domestic resources.

Another critical variable is the shadow cost of labour. In the above analysis, we have assumed the financial wages to represent the opportunity cost of labour, subject to elimination only of payroll taxes.³⁴ However, in the South African economy, where unemployment is quite high, at least among certain skill groups, regions, and races, it may be more appropriate to deflate the high level of union wages to derive an equilibrium cost of labour. This adjustment has not been undertaken in this preliminary analysis, subject to a wider debate on the issue at the upcoming EAGER workshop.

This section shows the gist of the analysis being undertaken. Further refinement of the firm typologies will allow us to build more detailed tables showing the differential effects of size, labour use, export orientation, and access to government incentives. This will be presented in the final version of the report.

³⁴ One might even argue that payroll taxes are not a tax, per se, but represent a transfer covering real pension and medical costs, and therefore should not be deducted to derive the economic cost of labor.

VII. Qualitative Overview and Strategic Implications

This section provides a qualitative overview of the sample firms, with a focus on the types of firms which are expanding or profitable. These firms are optimistic about the future of clothing manufacture in South Africa. The sample evidence suggests that there are many ingredients for success, some historical accidents, some favorable conditions external to the firm, and some directly the result of management practice. While no quantitative weight to the various factors is given here, a qualitative assessment of the nature of the successful firms finds a few salient features associated with good performance and dynamic plans for the future.

Overview of Firm Characteristics

The entire sample includes 103 firms in clothing and textiles as of January, 1998. These firms represent a range of sizes, product types, locations, modernity of plant, labor relations, retail channels, and dependence on exports and imports. The largest firm interviewed employs more than 2000 people, while the smallest has two. The majority of firms do both some design and manufacture, although several CMT operations and a few design houses are also included.

The survey was analyzed for 78 clothing and textile firms with complete interviews. The standard interview consisted of a session with the manager, owner, and/or accountant which lasted from one to two hours and a site visit to the production facilities for an additional one to two hours. Both quantitative and qualitative information were gathered during the interview and site visit. Firms answered questions from a long survey (summarized in Appendix A), as well as open-ended questions concerning the qualitative aspects of management strategy and attitudes.

The firms in the original sample were chosen to represent variation in a number of characteristics, including size, location, and market segment. exportation. Firms also differ in modernity of plant and management, labor relations, relations with retail channels, dependence on trade, growth patterns, and innovation. The sample analyzed below is a subset of the initial sample of 78 firms, including only the 53 firms for which direct observation of a range of types of innovativeness is available.

Size

Following standard practice, micro enterprises are defined as those with fewer than 10 employees; small firms as those with between 11 and 50; medium as those with between 51 and 200, large firms those with between 201 and 500 and very large firms as those with more than 500 employees.

Product type

This criterion incorporates several dimensions of output. First is the segment of the market to which the firm predominantly sells, with mass market and specialty niche market (in one case, almost bespoke) production being the ends of the spectrum. The second characteristic is the variability of the product (related to the size of runs), since a low-price item still may be subject to changes in style frequent enough to require significant costs of chopping and changing in production. A third dimension of product type, related to but in many cases distinct from the first two, is the level of skill required in production.³⁵

³⁵ An example of a niche market item which requires little variability in direct production and little skill in manufacture is the cotton knit printed apparel featuring bright, comical designs often representing African animals. These garments are expensive, but their appeal depends upon the print and not the construction of the garment per se, so that a change in style amounts to a change in the fabric.

Location

Inter-provincial and intra-provincial differences in location have an effect on the constraints facing firms. The Western Cape and the KwaZulu-Natal clothing and to some extent textile industries focus on different market segments (although this difference has been overstated at times). Within regions, differences exist between urban areas and the formerly decentralized centres of production.

A final locational characteristic of note is the degree to which the location of manufacturing facilities is co-terminus with administrative and design departments. As mentioned above, the sample includes both integrated firms which perform all functions on site and firms which have centrally-located administration, design, and marketing while either outsourcing to CMT shops or locating their own production facilities in outlying areas.

Modernity of plant and management

This factor, too, has several dimensions. First is the vintage of the capital equipment, which is assessed in the study both by the manufacturer's description of machines and of recent investment and by visual inspection during shop-floor visits.

Design is a separate area in which modernity is assessed. The first design criterion is based on the general knowledge displayed in interviews of design trends worldwide and how frequently designers or other staff go abroad to trade shows or otherwise have contact with outside sources of design knowledge. Another dimension is the techniques used for designing and implementing the designs. This is judged primarily by the degree to which these functions are computerized.

Management modernity is indicated by management's familiarity with benchmark technology, products, and labor practices. It is evaluated in this study according to knowledge and/or implementation of such practices as just-in-time inventory, single item and/or computerized rather than bundle through-put systems, multi-tasking or multi-skilling, and labor practices such as quality circles or other incentive/participatory schemes for motivation (see below).

With respect to computerized management, the use of advanced information systems is an important indicator of whether a firm is able to track the variables critical to its competitiveness. While many South African firms still use hand written style sheets to organize orders from clients and to sources of fabric and trim, schedules, production, inventory, and customer delivery, the most advanced firms are computerizing these systems. Management information systems go well beyond computerized accounting records. The most advanced, usually custom developed by the firms themselves, allow for integrated views of each stage of the design, production, and marketing process *and* give clients a view through the same window, via the Internet, so that customers can track the progress of their orders. Links to retailers' inventory and sales systems allows even tighter backward integration. Implementation of these systems, while costly and demanding in terms of worker literacy, numeracy, and computer skills, streamlines operations and facilitates integration into sophisticated world markets.

Labor relations

One of the basic defining characteristics is the degree of conflict in labor relations. While all firms are subject to common issues around SACTWU negotiations and actions, there is a wide range within our sample in both perception and reality of conflict between management and workers. To try to understand conflict, firms are also typed according to the internal labor relations practices, again using a mix of criteria. Firms are assessed according to the degree to which they train, educate and/or multi-skill workers, the kind of bonus or other incentive scheme they use, the degree to which they promote from within, the openness of management to workers' individual or group complaints or suggestions, policies toward discipline, and general attitude toward workers.

Some of the more cost-aggressive firms hire some portion of their labor from the informal market, by subcontracting production to smaller operations which do not have to abide by Industrial Council wage guidelines. In addition, labor in these firms is organized along assembly lines with each worker responsible for one operation only. The end result under this cost-minimization strategy is a progressive “deskilling” of the workforce.

An interesting alternative strategy being explored in just a handful of firms we interviewed views assembly labor not simply as a cost line item, but rather as a potential source of process innovation. Labor, seen as a partner in the process of “learning to compete,” is organized in teams and workers are encouraged to share skills and contribute ideas for reorganization of their work. This approach results in a more efficient use of labor by the firms, a “reskilling” of the workforce, as laborers master new skills and thus improve their productivity. It also results in an improved competitive position of the firm. This latter strategy offers the hope that labor may ultimately be able to share in the gains accrued from globalization.

Relations with retail channels

The major channels are retail chains and independents, although there is a recent successful move toward direct marketing by manufacturers through upgraded factory stores, a trend which may spread to other large firms. Retailers hold sizable control over the market in South Africa, as in the U.S., with roles in everything from product design to ordering behavior with implications for manufacturers’ inventory holdings to price setting. The defining characteristic here is the extent to which manufacturers work collaboratively or conflictually with their clients.

Dependence upon imports and exports

Firms vary considerably in the extent to which the inputs they use and the outputs they produce are dependent upon foreign markets, with consequences for the strategies firms pursue. Some firms feel constrained by the quality and availability of local fabric and trims, and find they get better service and designs from foreign suppliers. Others are comfortable working with South African suppliers. The breakdown here is often a function of the product range which the firm is addressing. Firms may interact in a strategic way with the international market. For example, the degree to which firms license (in effect, import designs and in some cases machines) from abroad in our sample has an important effect on success. One firm in the sample used foreign licensing as a means of exporting designs and brand label, rather than deal with the hassles of actually shipping product.

On the product side, some firms are beginning to see imports as a way of supplementing their own production, in terms of range of products, price classes, and seasonality. On the export side, sample firms’ perceptions of exporting product to the international market range from seeing it as an impossibility (“we’re too expensive in South Africa,” “our labor productivity simply does not match international standards,” “we can’t produce the volumes required by foreign markets”) to one component of a risk diversification strategy (a separate cycle of foreign demand can compensate for shifts in domestic demand for clothing) to an exciting challenge. Some firms had significant experience with exporting a few years ago, but are discouraged today by export policy and exchange rate variability which complicate their export planning significantly. The logistics of exporting, from identifying reliable international brokers and local distributors to worrying about sudden shifts in foreign importer policy if/when an import restraint threshold is crossed in a particular product category, are also daunting.

More broadly, some firms mentioned worrying about South Africa’s image overseas and its effect on foreign demand for South African clothing. For instance, with sensitivity to exploitative labor practices heightened in the minds of U.S. consumers, any bad press about unfair labor practices in South Africa has immediate repercussions on foreign buyers’ willingness to work with a new supplier.

Finally, it is recognized that the international textile and clothing markets are enormously competitive today. For a new entrant to make its mark, particularly in a global market where demand for clothing is stable or even declining, South Africa has to be more than “comparable” to other middle-income suppliers (Turkey,

Portugal, Morocco), it must offer a 15-20 percent cost advantage to international suppliers in order to even pique their interest. This would be less true in a situation of world economic expansion.

Understanding firm growth patterns

A range of sample characteristics for all firms and for firms grouped by rates of output growth is presented in Table 37. Firms in the sample as a whole locate 74 percent of their production in central areas. These locations, usually urban centers, require firms to pay the highest wages in the industry, ranging from 50 percent higher to more than three times the wages paid in outlying areas of South Africa. Other costs are higher as well, including rent and transportation. Until the mid-1990s, firms in outlying areas were subsidized by the central government in an attempt to move jobs to the former South African homelands. Under provisions of the decentralization laws, firms in outlying areas could receive subsidies up to more than 90 percent of the wage bill and transportation costs. Rent and investment subsidies were also offered. These subsidies are no longer provided, but firms in outlying areas are still exempt from national wage bargaining outcomes in the clothing industry. The resulting wage gaps can be on the order of 50 percent or more (Wage Board, 1997). Since the average wage in clothing is only half that of manufacturing as a whole, production in areas not subject to wage minima are low-wage indeed.

Looking at the sample according to firms' output growth characteristics, the table indicates that firms which have grown in the past three years have the lowest concentration in the high-wage central areas (59.6 percent), while those firms whose output is contracting are more than 90 percent located there. The high contraction firms, i.e. those whose output fell by 25 percent or more during the three years prior to the interview, were entirely located in central areas. On the other hand, the high growth firms also located 82 percent of their production in central areas. Thus, the simple fact of location does not entirely explain firm performance.

A stronger result emerges for firm size. High contraction firms were considerably smaller in both employment and output than the average, while growing firms were also smaller than average but relatively large in size of employment. Smaller firms, then, are bearing the burden of adjustment in the industry.

Exporting firms also exhibit sharp differences in growth patterns from non-exporting firms, although only in the extreme growth categories. High growth firms export on average 10 percent of their sales, while high contraction firms on average export nothing. A similar distinction does not hold for market segment. All the firms in the high contraction group of firms produce for the high end as well as middle and lower market segments. The only difference between high growth and high contraction firms is that while all high contracting firms sell to the mass market, none of the high growth firms does. Thus, although selling in the upper end does not ensure success, selling in the lowest market segment does seem to be associated with failure.

Table 37: Comparative Firm Characteristics, Firms grouped by rate of growth of output

	All Firms ²	All Growing	High Growth ³	All Contracting	High Contraction
Production in Central Area (%)	74.0	59.6	82.0	92.9	100.0
CMT Use (%)	51.5	39.7	56.7	56.3	64.0
Age	25.3	15.2	23.7	27.0	28.8
Employment	359.1	213.8	188.0	155.1	95.2
Sales (million Rs)	363.3	25.3	39.5	18.6	11.1
Exports (% of Sales)	4.1	3.7	10.0	5.0	0.0
Fashion Market (% of Firms)	77.5	85.0	100.0	75.0	100.0
Midrange (% of Firms)	70.0	81.3	100.0	66.7	100.0
Mass Market (% of Firms)	83.3	0.0	0.0	100.0	100.0
Fabric (% Imported)	44.1	36.9	22.5	37.5	50.0
Production: Vintage ¹	2.9	2.6	3.0	2.5	2.8
Production: Automation ¹	2.8	2.9	3.0	2.4	2.8
Design: Vintage ¹	3.0	2.7	4.0	2.8	3.0
Design: Automation ¹	3.0	2.6	3.7	2.8	3.0
Inventory: Vintage ¹	3.0	3.5	5.0	1.7	1.0
Inventory: Automation ¹	2.7	3.2	5.0	1.0	1.0
Innovation: Product ¹	2.5	3.5	3.7	1.5	1.0
Innovation: Large-scale Process ¹	2.0	2.0	2.7	1.0	0.8
Innovation: Incremental Process ¹	1.5	2.1	2.0	1.1	1.2
Innovation: Worker-Driven ¹	0.5	0.6	1.0	0.0	0.0
Innovation: Labor Process ¹	1.2	1.2	1.3	1.3	1.6

Notes: 1. On a scale with 5 as the highest level, 1 as the lowest level and zero for none.

2. The distribution of firms is All Firms=53, All Growing=16, High Growth=3, All Contracting=8 and High Contraction=5.

3. High growth and high contraction firms are those with rates of change of 25 percent or more in the last three years.

Given the discussion earlier in this report of import penetration, both legal and illegal, this result is not surprising. It does, however, raise an interesting puzzle. Firms in the central areas are declining while those outside central areas are growing disproportionately. This suggests that a low-wage and presumably low-road strategy is being pursued and pursued successfully. At the same time, firms selling to mass markets are doing worse than firms eschewing this market segment. Thus the firms in outlying areas are either bucking the trend and growing by selling to the lower end or they are not pursuing the classic low road strategy. Evidence from the sample indicates that the latter is more the case than the former. It turns out that location in a decentralized area does not necessarily restrict a firm to a competitive strategy grounded in low-wage, mass production of standardized and cheap garments.

This interpretation is supported also by the varying degrees to which the different categories of firms depend upon imported fabric. It is common to hear complaints from clothing manufacturers about the high cost and low quality of protected domestic fabric. From the table, however, it is clear that for this sample of firms, importing fabric is not a decisive factor in growth. High growth firms import an average of 22 percent of fabric, while high contraction firms import 50 percent. It is the uses to which the fabric is put, rather than the fabric itself, which must lie behind firm performance.

Innovation

One concern is with respect to the degree of innovativeness of the firm. Broadly speaking, innovation may be in the product or the process of production. The literature on innovation reports several types of innovation

and firm characteristics associated with each type. In this survey, innovation is divided into three main types, product, production process, and labor process.

In the clothing industry, the main type of product innovation comes from design or fabric choices.³⁶ Process innovations are divided here into two types, production and labor process. Production process innovations are those that arise from changes in the machinery producing outputs or organization of non-labor inputs. Labor process innovations are those that involve changes in the organization or use of labor in the production process. Introduction of a new machine or a new type of fabric glue would be construed as a production process innovation, while introducing group or team work would be considered a labor process innovation.

Production process innovations are further divided according to the nature of the innovation, large-scale or incremental. Large-scale innovations are characterized by new, expensive and technologically-sophisticated machinery, examples of which are automated cutting and stitching machines or automated conveyor systems to move and allocate work. Incremental innovation is based on adaptation of existing technology and/or machines. Examples are modifying templates to the specific stitching required for a particular style or adapting fabric spreaders to new types of fabric. These are innovations in the sense that existing capacities are changed to improve the quality or speed of production of the garment. Such adaptive innovation tends to occur gradually but continuously, hence the term incremental innovation. Managers, mechanics, and workers all may contribute to this process of adaptation and typically it happens on a small scale, without wholesale transformation of production.

Comparing the nature of capital and levels of innovation across firm types, several characteristics are implicated in success. First, although differences in vintage or automation are not great between growing and contracting firms, high growth firms do exhibit much higher indices for modernity and automation in inventory and design capital. Second, growing as well as high growth firms are much more innovative in product. Looking at the indices related to the nature of the innovation process, we find that high growth firms are more innovative in both large-scale and incremental process innovations. The advantage, however, is greater in large-scale than in incremental process innovations, suggesting either that incremental changes are relatively strong in the less successful firms or that large-scale change is more effective than incremental.

Evidence on innovations in the labor process paints a more mixed picture. While innovation is more labor-driven in the growing than contracting firms, the opposite is true for innovations in the labor process itself. All indices of labor process innovation are low and differences across groups are very small, but the high contraction firms turn out to be the sample firms with the highest level. Again, there are several possible interpretations of this result. It may be that threatened firms are more willing to introduce more participatory workplaces, seeing it as the last hope (Flaherty, 1985). Firm size is also relevant, since small firms are more likely to have participatory practices. Firms introducing large-scale process innovations, which in the sample are disproportionately growing firms, are less likely to introduce participatory practices.

Two final indicators of innovation have been constructed from the sample data. Firms are classified according to whether the process of innovation is worker-driven. Worker-driven innovation occurs when workers suggest or initiate adaptations of processes. The second characteristic of firms included among innovation indicators is the effect of innovation on workers. Firms may be classified according to whether the innovations it pursues results in the deskilling or reskilling of its workers, or is neutral in its effect on workers.

³⁶ No purely textile firms are included in this sample. However, several included firms do produce some fabric, either knitted or specialized prints.

Successful Large Firms

It is important to note that there is not one route to success, and firms with almost any mix of the above characteristics can be successful. In this section, though, patterns are identified which point to the rules rather than the exceptions in successful firms.

Looking first at size, we have found that while more large firms are successful, there is wide variation within size categories. For large firms, the degree of success depends partly upon market segment but also, and seemingly more important, it depends upon the way in which the factories are managed. Small firms range from near sweat-shops to modern, flexible, relatively high-skill operations. Success here depends upon knowledge of industry trends and upon investment, rather than upon low wages.

The most successful large firms we found share a number of characteristics with their less successful large brethren. They are able to exert some counter-pressure against large retail chains, so that their prices from the chains generally have not been as suppressed as those of smaller firms. They are modest importers of fabrics and other inputs and modest exporters of their output. They have large in-house design and marketing staffs and do substantial in-house training.

Where the similarities end is in market segment, technology and labor relations. Here a tale of two companies is instructive. To keep confidentiality, these two firms are stylized and not entirely real. The stylized unsuccessful firm is a combination of the features of two large companies interviewed and the second a combination of features of five factories of three large clothing and textile firms. Thus no real firm exhibits all of the characteristics of the stylized firms, but the real firms are nonetheless very close to this composite picture.

One large company (company A) produces for the mass market, has little computerization of inventory, design or administrative functions, has not invested substantially in new machinery in South Africa, and quite explicitly views labor relations as purely a matter of discipline. A second large company (company B) has a more mixed market segment, ranging from up-market, relatively specialized products to more mass market items produced in long runs. This company also differs in its computerization of design and administrative functions and in labor relations. Moreover, this company is informed of and experimental in implementing modern methods of organization like just-in-time inventory control and flexible methods of moving work along the line. This company also has a policy of promoting through the ranks and of training for multi-skilling and multi-tasking. It rewards workers for suggestions that save money and it has a bonus scheme that increases the bonus percent as workers get closer to the target.

The first company, company A, has fallen on hard times and has downsized, with the ultimate goal of moving production out of the country all together. Company B is profitable and expanding. Although it has explored moving out of South Africa, it believes that there is plenty of opportunity to make money in South Africa and will stay.

Company A pays exactly the union-mandated wage, which it considers to be too high, and may have arrangements for overtime or weekend work which are not in compliance with contractually-mandated payments for this work. Company B pays a bit above the industry standard, even in formerly decentralized areas where labor is presumably lower-skilled.

Moreover, company B has found that even in decentralized locations, with presumably lower skilled labor, flexible production and just-in-time inventory control are possible, while company A relies on an organization of production in line with the 'old competition'. This company practices just-in-case rather than just-in-time inventory, uses standard long production lines, and moves work in large bundles.

In internal conditions, then, the two firms are very different, one modern and one traditional. But the differences in product market may also be telling. The first firm may be unsuccessful due to bad market position rather than bad management or organization. While a qualitative assessment cannot pronounce on

the statistical significance of the various factors determining performance, it is true that company A has faced more significant problems with competition from illegal and legal imports than company B. A second key feature of this firm is that although it deals with a large retail chain as its major buyer, it does not feel that it has much clout with the retailer due to the availability of imports. Size in this case does not translate directly into ability to put as much countervailing pressure onto retailers as company B does. Thus, although company A has more influence over retailers' payments for its output than does a small firm, it may have less than a similarly large firm in another market segment.

These external factors, however, also to some extent are pressuring the second firm. For several of company B's products, imports are becoming a threat. While their relations with chains continue to be more balanced than for the first firm, they have had to find other marketing strategies to reinforce their position. For example, company B firm has found processes which are unique and products which are branded under license to sustain its markets and hence its leverage over retailers.

The structure of the firm and the role of management also play an important role. Company B is either family owned or, if part of a group, the manager is given considerable latitude in operational and even investment matters. Company A is more hierarchical and bureaucratic. It operates on the basis of profit centers, requiring each facility or division to be profitable, but does not seem to grant the divisional managers much autonomy. Rather, control appears to reside at the center.

The degree to which the managers are outward-looking also varies between the two types of firm. Company B managers have studied and lived abroad and send their workers and staff abroad to be trained, as well as to technicians in South Africa. Company A managers may have international experience, but as ascertained from the interviews, interest in and on-going familiarity with foreign countries and their clothing or textile sectors is limited by comparison. Company B managers are active in pursuing foreign contacts and markets while company A's have given up on penetrating export markets (and even on defending their share of South African markets). More subjectively, company B's outlook is that apartheid-era policies stifled productivity while that of company A (often stated quite bluntly) is that conditions in the new South Africa preclude profitable clothing and textile sectors.

Finally, company A is looking toward vertical disintegration, while company B toward more integration. It may be that company A's previous level of integration was dependent upon the degree of protection and subsidization given industry before 1992 and that disintegration is a rational response to changing circumstances. Nevertheless, it is striking that the company B approach emphasizes several specific areas in which integration can enhance performance. Most often cited are the need for specialized printing or other kind of fabric treatment and for quality control in inputs.

A variation on this theme is the prevalence of outsourcing. While both companies, by virtue of being large, have substantial production facilities, company A does outsourcing and wishes to do more. Company B prefers to produce in-house for reasons of both quality control and efficiency of production.

The lessons from these two stylized firms are clear. While the first firm does have external conditions which are difficult, it has done little to respond creatively to the challenges. Its response is to continue to do what it has always done, only in a different location. It chooses locations which still look more like the South Africa in which it was for many years successful. The second firm, in contrast, is forward looking and flexible, changing its internal organization and strategy in response to changing external conditions. A difference in spirit also emerges strongly in the interviews. In company A there is an air of resignation, an implicit statement of an intent to give up. In the second company there is an enthusiasm for experimenting and an open-mindedness to solutions. For example, some changes which have improved flexibility in company B have involved simplifying and going back to old ways of doing things. There is no fetish made of achieving 'world class' production or introducing all of the components of what has come to be called 'new competition.' There is instead a willingness to introduce a fairly constant stream of small, incremental changes which taken together can yield large gains.

The main conclusion about size of firm from the interviews is not that size does not matter. Size does create opportunities denied to small firms, particularly in investment in up-to-date technology. Size by itself, though, is not a substitute for the other factors highlighted above. Management education and spirit, the structure of the firm, and its labor relations swamp size as determinants of success. Market conditions obviously are important, but, as noted above, company A kinds of firms take the conditions as given, while company B firms try to change them.

Successful Small Firms

If we consider small firms, the picture is somewhat different and not as clear-cut. By their nature, small firms are more varied. Some are simply CMT operations, some purely design studios, and others are integrated production and design facilities. Each type can succeed under some sets of external and internal conditions.

The more successful CMT operations we visited looked more like the large company B than the large company A, particularly in their labor practices. While management attitudes toward workers may be seen as paternalistic in these firms, there was a clear commitment to keep going because people depended upon these jobs. Moreover, there was an appreciation of the ability of workers to be flexible. While size makes it easier to develop labor relations based on personal relations between workers and management, the substance of these relations may still be more or less conflictual. The more successful firms were by their own characterizations less conflictual.

Labor relations are a critical factor in maintaining the success of these company B type CMT firms, since these firms also serve a higher-end market segment where quality determines continued work. These firms have regular, long-term customers, who also help sustain the CMT shops in slack times by sending them more routine work.

This symbiotic relationship between CMT firms and their customers stands in sharp contrast to the relations described by the less successful firms. The more marginal CMT operations complain bitterly about their treatment by their customers and have a very hard time making it through slack periods. They often impose extended short-time and as a result have high labor turnovers.

The company A kind of CMT firm also typically complains about both the quality and the cost of labor, while the company B type, although similarly squeezed by costs, sees the wages also in terms of the cost of supporting a family. The more successful CMT firms complain about the lack of flexibility of workers, but not about the level of commitment or diligence.

The experiences of small CMT firms thus reproduce to some extent those of large firms. Serving a higher quality market segment, achieving more harmonious labor relations, and having long-term relationships with customers all are associated with good performance (although none of these firms is highly profitable).

The issue then is whether it is possible to disentangle these features linked to success and to weigh separately the contribution of each. There are obviously strong interdependencies among these three characteristics. Serving a higher quality and higher priced market segment presumably means serving more profitable customers who can better afford to support their CMT operators during slack times. Evening out slack in turn leads to less short time and hence less labor dissatisfaction and more commitment. Both these outcomes reinforce the CMT-customer relationship and support development of long-run relationships.

Within the framework of the qualitative information from the interviews, it is difficult to say which factors are more decisive. Historically, the more successful firms started with paternalistic but harmonious labor relations and evolved into their present market segments. Historical trajectory, however, is rather weak grounds for asserting the primacy of labor relations in CMT performance. A more direct connection is between the quality of the output and the reliability of labor. It is not possible to get work from the higher end chains or independents without adhering to strict quality and delivery standards, which depend upon

willing workers. The more successful firms had very low labor turnover and absenteeism, adding to their ability to move quickly to satisfy retail chain demands.

One characterization of how informal sector, low end CMT operations achieve the same result provides a telling contrast. In describing the advantages of informal, neighborhood-based production, an observer of the industry argued that there was never a problem with absenteeism in this set up since “if the collar setter is absent, the boss can just go and haul her out of bed.” The likely difference in quality of work from the collar setter who works because she knows the firm needs to get the order out and from one who works after being “hailed out of bed” is all too obvious.

Policy Implications

Policy implications of the interview information are not so obvious. A number of questions must be addressed. First, if it is true that firms of the company B type are indeed more successful, how can policy create or encourage company B behavior? Will government or the private sector support such policies financially? If not, what policies may be consistent with government commitment to budgetary restraint? Second, is there room in the industry for many more company B firms? Can company B firms simply reproduce and avoid competing away each other’s profits? Should expansion of the clothing industry be encouraged or should policy be aimed at moving people and capital into sectors which worldwide are more dynamic?

Before this study can be used directly for policy, these broad questions need to be settled at the levels of both government and industry. Policies are interactive and a consistent package is required. Some suggestions do emerge, however, even from this qualitative information.

Human capital development

Central to firm performance is the education and skill levels of workers and managers. Government expenditures on basic literacy, adult education, and technikons will likely have the effect of “crowding in” private sector investment. An indirect effect may work through increasing the pool of trained black workers who can be promoted into supervisory positions (although this can be difficult for reasons related to shop-floor conflict spilling over into communities). The firms we visited which promoted blacks through the ranks seemed to have less conflictual labor relations.

Changing managerial behavior and attitudes is a more subtle problem. Attitudes toward the work force are deeply entrenched and will be difficult to change. The adult literacy programs being implemented now offer one avenue for increased awareness on the part of managers of the untapped potential of their workers. In one firm, the demand on the part of workers for more education has led to the creation of advanced courses and a greater willingness to send workers to technikons for further training.

Access to capital

Access to working capital is a second critical area, particularly if government is concerned with growing small firms. Something as simple as bridging finance for established CMT operations can help set into motion the virtuous cycle described above of avoiding slack time, having a more stable work force, and achieving higher quality and productivity.

On a longer term scale, investment capital is expensive in South Africa, with rates in excess of 20 percent, compared with international rates below 10 percent in the U.S. and Europe. An inflation differential notwithstanding, this clearly constrains the enthusiasm of investors in new capital equipment in South Africa. Nevertheless, the textile industry in South Africa has invested heavily in recent years in new machines for spinning, weaving, and especially finishing in order to improve competitiveness.

Even more broadly, capital is technology. While other countries, such as the U.S., enjoy public-private research in the development of applied technologies to further the competitiveness of their textile and clothing sectors, we have found little evidence of this in South Africa.

Policy stability

One role for policy here is to establish clear and at least medium-term policy parameters to minimize uncertainty about the macro, labor, and sectoral policy environments. A complaint frequently heard among company A type firms is that government changes its policies so often that planning is difficult. While it is not necessarily the case that policy stability will overcome inherent risk-aversion in these managers, it will in any case be good as well for the more risk-taking firms. With broad changes in government now settled in South Africa, the private sector needs some assurances of stable, or at least predictable, exchange rates, interest rates, inflation rates, wage rates, tariff rates, and so forth.

Export promotion

Another area for policy intervention is revealed by the sparse use by firms of DTI support for trade-related travel. Programs to help firms become aware of and use the available export marketing assistance would be helpful to export initiatives. This would only support individual firm initiatives, however, and would have to be supplemented by more systemic efforts to market South Africa abroad. Here the CLOFED initiatives being developed through the organization's export council are instructive. The most ambitious is the idea of an export clearing house, which would gather, disaggregate, and disperse export orders. This is also an idea which, from the interviews, would be a concrete contribution. Many firms expressed fear that export orders were too large for them to handle so not worth pursuing, yet they would mobilize for a smaller order.

None of these policies addresses the backward-looking propensities of many manufacturers. For these firms, no policy may be sufficient to induce them to change course. If so, there will be a natural clearing-out process after which the B-type firms will become a larger presence in clothing and textiles, which will perform become more dynamic. The cost, of course, will be employment in a highly labor-intensive sector. This brings us back to the broader questions of policy raised earlier, about which government must decide. If clothing and textiles are deemed sectors worthy of intervention, this study can point out some potentially fruitful areas of policy development. If not, the study has found ample evidence of creativity and enthusiasm upon which these sectors can sustain themselves, albeit in a form which may be less socially desirable.

VIII. Conclusions

This report has presented considerable detail regarding the current state of competitiveness in South Africa's textile and clothing sectors. Broad policy implications have been drawn out of the qualitative assessments.

Several notes of caution are in order. This study has interviewed both textile and clothing firms (although the sample to date has been quite biased in favour of clothing firms) in the view that these are in many ways an integrated industrial pipeline. For analytic purposes, this view is appropriate. However, from a management or firm strategy perspective, there is nothing which necessarily binds these two subsectors together.

Internationally, there is great competition-cum-collaboration between textile and clothing firms, and there is every reason to expect the same in South Africa. Textile firms in the U.S., for example, in many ways take the technological lead in developing custom fabrics and finishes which give clothiers different apparel qualities to sell as part of their product images. On the trade front as well, outward processing traffic regulations are promoting textile firms as the dominant upstream corporate entity. In the U.S., for example, U.S. manufactured cloth is cut in the U.S. and sent to Mexico and the Caribbean for final processing into apparel. Textile firms, therefore, are becoming the pivotal link in the chain supplying clothing directly to U.S. retailers and circumventing the clothing firms.

Thus, in South Africa, too, firms at all levels of the pipeline must be encouraged to compete. South African textile firms may supply an increasing share of worsted woolens to the international market, for example. Household textiles is another broad segment which may find its way to foreign consumers. Changing the mentality about fabric *exports* may contribute to a changed mentality about fabric *imports*. Only when tariffs and duties on imported inputs come down further can South African textile and clothing firms operate on a more cost competitive basis in international markets.

The other caution is with respect to the informal end of the clothing sector. This segment of the pipeline is the safety valve, if you will, of the sector. As cost cutting becomes the mantra of the day, many larger firms are shedding some portion of their in-house production capabilities, preferring to concentrate on the design and market placement sides of the business, and leaving labour management to CMT firms. The CMTs, in turn, walk a fine line between offering lowest cost assembled product to their clients and not going under. The temptation to the CMT firm owner, because of his/her firm's smaller size in many instances, is to avoid compliance with wage guidelines of the Industrial Councils. The temptation to the government and union is to see this as a flouting of economic principle, and to enforce new Wage Board guidelines. It is suggested here that in the interests of job creation, zealotry be moderated cautiously.

In conclusion, there is every evidence that many South African firms are learning to compete. While firms may complain of policy instability, one clear policy message is definitely getting through. This is that South Africa, having rejoined "the family of nations" on the political front, intends to integrate its economy and its body of economic regulation with international standards as well. Commitments have been made to the World Trade Organisation and other bodies that South Africa will eliminate quantitative barriers and reduce tariffs.

While the degree of tariff reduction currently anticipated is still quite protective, South African firms understand that liberalisation is the wave of the future, and are reacting to it in various ways. Some are quite concerned and fear they will not survive, others are taking the necessary training, reorganisation, and modernisation steps to prepare not just to react but even to shape their own futures within South Africa and on international markets. For those firms seeking assistance in export market penetration, several government programs now offer resources in a spirit of partnership with the sector. Thus, there is considerable optimism in the industry today that collaborative efforts are beginning to yield an export strategy that will be good for business in South Africa. To the extent that the message of the link between progressive use of labour by

management and improved productivity and competitiveness can be communicated widely, then there is some real hope that labour may share in the gains of export orientation as well.

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