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## DIFFERENT ROUTES TO GLOBALIZATION: THE CASE OF CARPI

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### ABSTRACT

The industrial district of Carpi, Italy, features a long history of manufacture. For forty years (1950-1990) the district underwent a number of transformations, reinventing itself, changing technology, providing new models of organization. At the same time, it continued to represent a successful model of diffused industrialization. Things changed in the course of the 1990s. A phase began which many view as irreversible decline. During this decade, the typical industries of the district, and especially knitwear, were subject to very extensive downsizing: there was a sharp fall in the number of firms, employment and market shares, in relation both to producers in other countries and to other Italian productive systems. The present work offers a first interpretation of this process, focusing on firms' reactions and strategies.

Keywords: Industrial Districts, Clothing and Textiles Industries, Industrial Change and Dynamics

JEL code(s): L22 - L23 - L67

## ***1. Introduction: Carpi, a long history of manufacturing***

The industrial district of Carpi, Italy, features a long history of manufacture that is usually dated back to the working of wood shavings and the production of straw hats, as from the XVI century. Carpi produced and marketed both straw hats and semi-finished products, such as wood-shaving plaits, for making the hats. In the XVII century the products of the area were sold on the principal markets abroad.

The raw material employed was willow wood, subsequently poplar, available in the nearby valley areas and the River Po basin. The work went through a number of stages: production of the straw; production of the plaits; treatment of the plaits; production of the hats and marketing.

Production was organized by division of labour among a variety of professional figures independent of each other. The 'straw worker' (pagliaro), generally an independent worker, dealing with the production of the straws. The 'plaiters' (trecciaiole), who worked at home. These workers generally lived in the country and their earnings complemented the family income in periods when work in the fields was scarce. The putter-out (partitante) who was responsible for distributing bundles of straw to the plaiters and returned to collect their finished plaits. The 'case incettanti' (where the plaits were stored) or makers of finished products who received the plaits, sewed them together and made up the hats, then sent them to their own clients. The activity of the makers of finished products was more in the nature of trade than of manufacture and relied largely on seasonal workers and homeworkers, also for sewing the hats.

The Carpi entrepreneurs had agents abroad who maintained contact with local traders and intermediaries. The foreign markets involved were mainly those of Britain and France, expanding at the start of the XX century to include the United States, Latin America and the Far East. Some firms set up trading branches in these areas and in Italy the most intense relations were with the city of Florence, where numerous buyers acted as intermediaries between the demand from foreign commercial chains and the local artisan production.

The wood shaving and straw hat industry prospered through the early XX century, only to fall on hard times shortly before World War II, owing to the ongoing slump in demand for these products as a result of changing habits.

The enterprises of the area thus found themselves up against the need to convert their production, and various experiments were tried in this period of tradition: production of headgear nets and camouflage tunics for military use; hair nets; the first manufactures of shirts and knitwear.

There was nothing especially complicated involved in this move away from straw hats. Indeed, there was a certain technological convergence between the productions, and the skills needed for making up shirts and working knitwear could be mastered in a short time. From the economic point of view the technologies were accessible also to the homeworkers, who soon obtained the necessary machines and continued to work in their own homes. The work was parcelled out to the workers and then collected by the 'gruppista', a figure very similar to the one who distributed the wood shavings.

The organization of labour utilized by the wood shaving industry, based on home working, was passed on to the budding knitwear and clothing industry.

The Carpi district of knitwear and clothing industry came into being after World War II. In terms of growth rate, the 1950s represent the period of greatest expansion, with employees in the sector increasing from 1,700 in 1951 to 6,400 in 1961.

The enterprises that started up in this period were not isolated firms; right from their inception they were characterized by specialization in various stages of the production cycle and by their close relations with each other.

Knitwear and clothing firms were set up to produce finished products alongside workshops and homeworking specializing in performing stages for the first-named. To these must be added a very large number of homeworkers, whether of local origin or moving into the area from the South of

Italy with their families.

The process of division of labour among firms can already be found in phase of setting up the district, and the way this system of production took shape shows how it did not spring from processes of outsourcing of production or stages by firms located elsewhere. Right from the outset, the firms of the district sought to produce their own products and to sell these on the final markets, and this feature, too, testifies to the affinity that existed with the previous industry of wood shavings and straw hats.

The knitwear and clothing industry produces garment designed and made at local level, destined mainly for export markets. The sector started out with a strong orientation towards exportation and in the 1960s recorded some of the highest export figures in its history. Relations with foreign buyers were very close and were pursued mainly by welcoming the latter into the district itself where they could view the collections designed by the local producers, leading to placing orders. Like many districts with similar characteristics, Carpi started out by taking its good products in sample cases to Milan, with others on the stalls of itinerant vendors and street sellers; it grew through wholesalers and buyers who, season after season, came to see, to select, to try out, to advise and to purchase.

In these years the products made by the local firms were of medium quality and fairly standardized, in line with the style of apparel of the 1960s. In shirts and men's knitwear, mainly, the products did not undergo much in the way of variation in time and production was in fairly long runs.

Through the 1960s some medium-large firms became established and the firms of the district reached an average size of ten employees, which represents the largest size recorded in the subsequent decades.

The 1970s and 1980s witnessed a gradual and significant evolution in consumption, characterized by a strong segmentation of the market and a differentiation in tastes and purchasing behaviour on the part of consumers. This deep change in the market went hand in hand with the growth of a new competition localized above all in the more recently industrialized countries.

During this period Carpi moved rapidly away from standardized and mass productions, which the European consumer began to purchase in countries with lower labour costs, and began to produce garment with higher quality and greater fashion content. Local producers invested in the design and planning stage of the product, making products aimed mainly at female consumers, highly differentiated and variable in time, in line with the trends in fashion.

The effect of this strategy on the growth of the local industry was unmistakable: the number of active firms in the district rose and the employees continued to increase, from over 10,000 in 1971 to around 15,000 in 1981.

The organization of production also underwent a process of adaptation and rationalization. In order to meet the demands for flexibility due to the greater variability of the products, the larger producers relied more and more on outsourcing and concentrated their in-house resources on design, marketing of finished products and co-ordination of outside production. New small-size firms sprang up, characterized by a completely disintegrated structure at productive level — they, too, concentrating exclusively on design, marketing and coordinating outside production. At the same time, there was an increase in the number of subcontracting firms specializing in the individual production stages, whereas the number of homeworkers dropped. Weaving technology changed radically with the introduction of flat knitting machines, that were more productive and adaptable as compared with circular ones.

This period witnessed the establishment of a network of extremely specialized and well-organized workshops operating in the stages of weaving the bed, cutting, make-up, ironing, checking and packaging the products.

During the 1980s the district assumed a position that was to be perfected in the subsequent decade through an important and generalized growth in the quality of the products and their fashion

and style content. Carpi continued to sell on foreign markets but as the decade progressed the domestic market gained in importance. There was diversification and change in the types of client as compared to the past. Producers no longer sold to foreign buyers alone, but also to Italian wholesalers and directly to retail outlets. By the second half of the decade, Carpi was not confined to designing and producing garment ever new and more up to date with respect to the trends in fashion, but was also perfecting a productive model that anticipated the principles of 'just in time' and 'quick response'. In this period the district tried out a new way of designing and producing that reduced the so-called 'time to market' to a minimum. The organization of production, based on the forced division of labour among the firms, offered the possibility to achieve very high levels of flexibility and efficiency, even in small runs and products variable in time. The 'pronto moda' organizational model, as it was called at local level, reduced the 'time to market' to ten-fifteen days, from design of the item to delivery of the finished product. In the second half of the 1980s this kind of production rapidly increased and found its main outlet in the Italian market. Thanks to the 'pronto moda' firms Carpi succeeded in maintaining stable employment up to the early 1990s.

For forty years, then, the district underwent a number of sea-changes, reinventing itself, changing technology, providing new models of organization. At the same time, it continued to represent a successful model of diffused industrialization.

Things changed for the specializations of the district in the course of the 1990s. A phase began which many view as irreversible decline.

During this decade, the typical industries of the district, and especially knitwear, were subject to very extensive downsizing: there was a sharp fall in the number of firms and employment, and the knitwear and clothing industries lost importance with respect to other manufacturing activities. There was a slowdown in the birth of new firms. Young persons showed increasingly less propensity towards the typical local industry. Little by little the district was changing its aspect.

The present work aims to supply a first interpretation of this transformation, dealing with a period running from 1990 to 2002. Let it be said at once that the perspective is a very partial one — the change in the industrial structure and the strategies of the firms — and no attempt will be made to reconstruct the complex effects on the labour market (in particular, on female employment), on the industrial relations and on Carpi society itself. The starting point is the analysis of the data of a panel made up of around 300 firms, representative of the overall population of the knitwear and clothing firms in the communes belonging within the district<sup>1</sup>.

## **2. *The 1990s: structural change or decline?***

The main features of the district are summarized in Table 1. The communes with greater specialization comprise around 90,000 residents. Of these, a little under 10 are employed in one of the 1,600 textile/clothing firms operating in the territory. Employment in the knitwear and clothing industry continues to be largely female (67.9%) and independent work retains extraordinary importance: slightly less than one third of all those in work are independent, a figure that has changed little during the decade.

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<sup>1</sup> The data presented below are taken from the periodic surveys of the Observatory for the Textile/Clothing Industry in the district of Carpi. From 1990 to date, seven two-yearly data-collection have been performed on an open panel of firms. The sample is representative of the entire population of firms. Use is made thereafter of the archives relating to the first, sixth and seventh survey, for the years 1990-2002, dates of reference respectively of the first and last collections. For a fuller account of the method of sampling and constructing the panel the reader is referred to Brusco and Bigarelli (1992). The boundaries of the district are limited to the communes with greater specialization: Carpi, Cavezzo, Concordia, Novi and San Possidonio. This set of communes is more extensive than the one by which ISTAT identifies the local system.

Table 1 – Main characteristics of the productive system

	2002
Population (Carpi, Cavezzo, Concordia, Novi, S. Possidonio)	92,000
<i>Knitwear and clothing industry</i>	
Total employment	8,854
Female employment	6,016
Percentage of total manufacturing employment	≈ 62.0%
Entrepreneurs, artisans and self-employed workers	2,792
Employees	6,062
Firms	1,583
Total turnover (000.000 euros)	1,023
Amount exported	36.8%

Table 2 – Firms and employment in the knitwear and clothing industry (2002)

<i>Size of the firms</i>	<i>Firms</i>		<i>Employees</i>	
	<i>a.v.</i>	<i>%</i>	<i>a.v.</i>	<i>%</i>
1-9 employees	1,368	86.4	4,292	47.5
10-49 employees	205	13.0	3,665	41.1
50 or more employees	10	0.6	898	11.4
Total	1,583	100.0	8,854	100.0
Average size of final firms	---	---	11.4	---
Average size of subcontracting firms	---	---	3.9	---

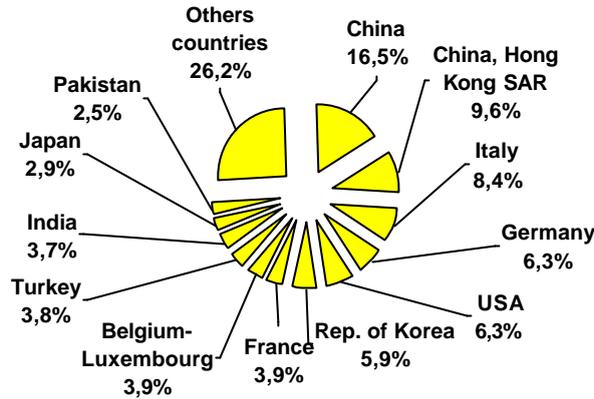
In terms of production, Carpi currently accounts for about 6% of the overall amount in these industries in Italy, with a high propensity to export, at 36.8%.

The structure of the industry did not undergo any great changes during the decade. Perhaps the most important finding is that at the end of the period all the medium-large firms, which had emerged during the 1960s, had disappeared. At the start of the new decade, these were replaced by firms that, while not negligible in terms of economic size, were much smaller in terms of employees. At the end of the 1990s, the five largest firms were producing around 19% of the total output of the district. Only ten firms in 2002 — as against 18 in 1990 — had more than 50 employees, with an overall turnover that, at the end of the period, accounted for one quarter of the total output of the final firms. The majority of the firms (86.4%) employed less than ten persons, even including those operating for the final market. So the firms were very small and had an extremely low level of vertical integration.

While the industrial structure did not change, the opposite was true, and to a very large extent, of the importance of knitwear and clothing as compared with the other activities of the district and with respect to the same productions performed by Emilian firms based outside the district itself. As compared with the start of the period, production at constant prices fell by more than one fifth (-21.6%) and the share of the regional output dropped from 30% in 1990 to 22% in 2002. In the same period, the share of the regional exports of knitwear and clothing slumped from 49% to 35%.

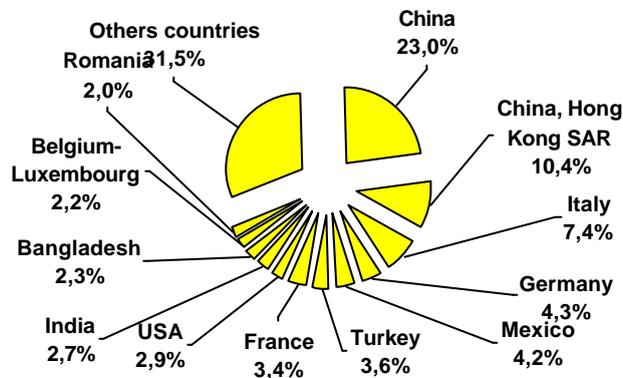
These figures must of course be read in relation to the national trends and bearing in mind that in Italy employment in the specialized productive systems in these industries and in the non-manufacturing systems has been steadily declining since the decade 1971-1981. From the outset of the 1970s to the mid-1990s, the textile/clothing industry, considered as a whole, lost just under one third of its employees with respect to the starting figures, down from 942,000 to 676,000. In the territorial concentrations of medium and large firms the numbers of employees dwindled to less than half.

**Graph 1a - Textile Industry**  
 The main export countries in the world  
 (2002)



Source: Chamber of Commerce of Modena on data from ISTAT and U.N.

**Graph 1b - Clothing Industry**  
 The main export countries in the world  
 (2002)



Source: Chamber of Commerce of Modena on data from ISTAT and U.N.

The industrial districts themselves, following a period of vigorous growth throughout the Centre-North in 1971-1981, with over 470,000 employees, saw a decline by the mid-1990s from over 470,000 in specialized employment to 350,000, a fall of nearly 25%.

The backdrop to this is, obviously, the emergence and rapid growth of new actors on the world scene, as illustrated in Graph 1.

In the textile/clothing industry Italy continues to be the leading exporter in Europe, followed at a distance by Germany and France; but the shares of China, Hong Kong and Korea, followed by India, Pakistan, Mexico, Turkey and Bangladesh enjoy an exponential growth.

In Carpi the downturn in the productive base began later, but has been more intense. The absolute number of firms began to diminish from the mid-1980s, accelerating during the 1990s:

from 1990 to 2002 the number of firms fell by nearly 30% with respect to the initial value.

Table 3 – Final firms and subcontracting firms

	1990		2002	
	<i>a.v.</i>	%	<i>a.v.</i>	%
Firms producing for the final market	589	26.1	357	22.6
Subcontracting firms	1,669	73.9	1,226	77.4
Total	2,258	100.0	1,583	100.0

Table 4 – Employment in the final firms and subcontracting firms

	1990		2002	
	<i>a.v.</i>	%	<i>a.v.</i>	%
Employees in the firms producing for the final market	7,603	54.3	4,061	45.9
Employees in the subcontracting firms	6,403	45.7	4,793	54.1
Total	14,006	100.0	8,854	100.0

A great part of the fall in employment occurred in the period under study. The subcontracting firms lost about 1,600 employees (one quarter of the initial employment figure). In the final firms many more jobs were lost, down from 7,600 at the start of the period to 4,800 at the end (a reduction of over 45%).

A very large amount of this job shrinkage affects the final firms who work to an order-production calendar of ‘pronto moda’ type<sup>2</sup>. After contributing in the previous decade to the success of the district, in the period of study very many of them, around 40%, failed. Many of the typical products of these firms — items with high fashion content but medium-low quality — are now provided by firms based in the South (especially in the regions of Puglia and Campania). The same years witnessed the exit from the market of many of the historic firms of Carpi, whether owing to problems connected with generational turnover, or because they were taken over by firms outside the area who were interested exclusively in the brands (OBC, Umberto Severi, Best Company, Papas, MIT and others). The output of these firms featured fairly standardized items produced in medium-long runs, such as men’s shirts and outer knitwear and sports apparel.

Carpi and its firms have responded to the crisis in various ways: by changing output and markets, changing sales strategies, and reorganizing the outside production.

Table 5 – The sample collection of the final firms

	1990	2002
Number of models (all the firms) in a year	102,498	99,222
Average number of models per firm in a year	176	278
Turnover per model (euros at constant 2000 prices)	12,000	9,869

Under pressure from price competition in the lower segments of the market, several firms shifted towards products of higher price/quality, offering a wider variety of products. Today, over two thirds of the final firms produce for the higher bands of the market. From the point of view of organization and costs of the enterprise, the vertical diversification has had two effects. On the one

<sup>2</sup> To use the terminology of the operators, the difference between firms producing ‘pronto moda’ and those producing ‘programmed’ calendar is as follows. The ‘pronto moda’ firms prepare the collection and collect orders from clients a little before the sales season (and not seldom even after the season has started). The ‘programmed’ firms, on the contrary, establish the collection well in advance (about one year) of the sales season and programme their production on the basis of the orders received. In this sense, the second-named firms contribute to defining the fashion trends. The first-named interpret them and produce the models that achieve greatest success. It might be said that the ‘pronto moda’ firms are in some sense “imitators”, their products having an intrinsically lower quality; whereas the ‘programmed’ firms have greater abilities in design and generally higher quality in their production.

hand, the firms have been led to invest an increasing amount of resources in the collection and in the development of the models; as against that, the total production is articulated over a larger number of models. Both these aspects are evidenced in Table 5. The average number of models in the sample collection of the final firms increases from 176 at the start of the period to around 280 at the end. On the contrary, the mean turnover (at constant prices) achieved for each model falls from 12,000 to a little over 9,800 euros. The district manages to combine quick, flexible responses with an ample variety of models by investing very important amounts in the collections.

In the same period the firms turned increasing attention towards the international markets — partly as a result of growing difficulties on the domestic market (where, in the 1990s, sales fell to nearly 35% at constant prices).

As appears from Graph 2, which summarizes the performance in terms of exports of the firms of the province as compared with the main competitor countries, the differentiation by segment was very marked. In the second half of the 1990s, the knitwear firms lost more than the Italian firms<sup>3</sup> as a whole (–33.7% as against –10.9%). In clothing the situation was different: in the same period the growth of exports by the local firms<sup>4</sup> was significantly higher than that of Italy overall (+38% as against +10.6%)<sup>5</sup>.

Table 6 – Exports of the final firms – Percentages of total turnover

<i>Size of firms (employees)</i>	<i>1990</i>	<i>2002</i>
1-9 employees	14,0	37,3
10-49 employees	22,0	36,9
50 or more employees	28,3	38,3
Total	22,4	36,8

Throughout the period, the propensity to export in the final knitwear and clothing firms overall in the district increased significantly from 22.4% to 37%. The trend was especially marked in the smaller firms, whose foreign trade turnover rose from 14% of the total in 1990 to 37% in 2002. The countries of destination also changed: while the share of EU countries (at 2001) stood at 80% at the start of the period, by the end it had fallen to just over 65%. Germany continued to figure, though to a much lesser extent (down from 44% to 24%), alongside new markets in Europe, America and, in discrete amount, Asia.

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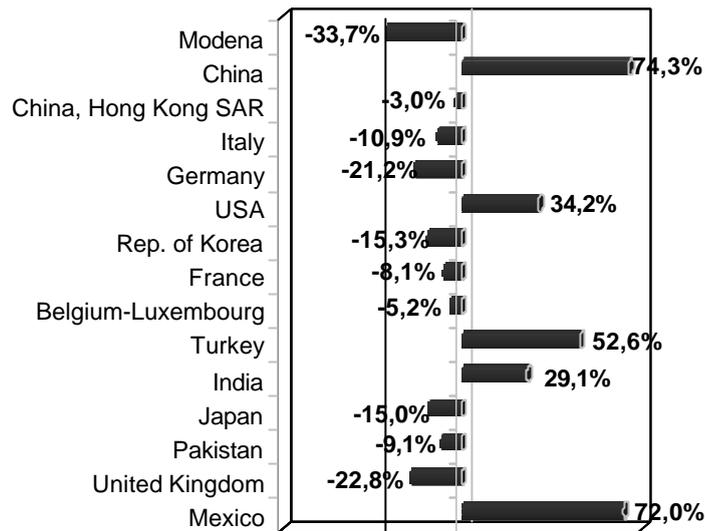
**Graph 2a - Textile Industry**  
*Change in percentage of the export of the main export countries*  
*(current price in dollar, 1996-2002)*

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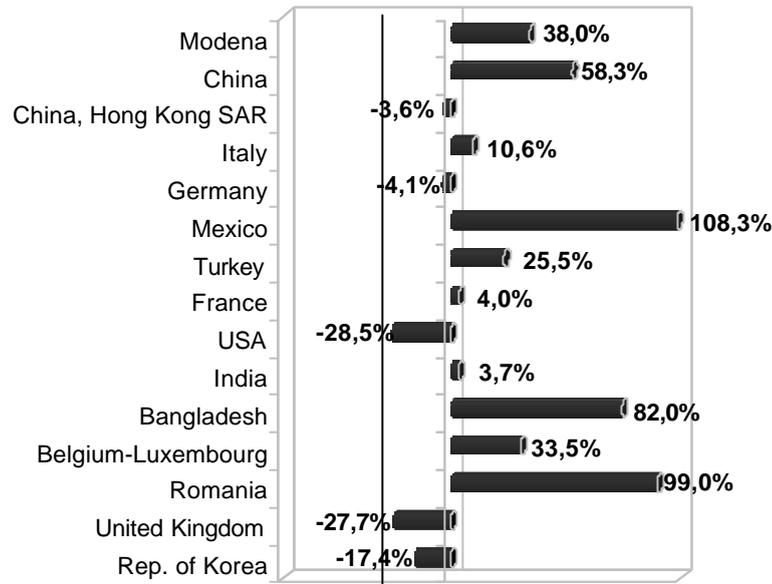
<sup>3</sup> The textile industry aggregate comprises various products, such as yarns, woven fabrics, knitwear, etc. Modena specializes in the production of knitwear, whereas in Italy and other countries the production of yarns and woven fabrics are of greater importance.

<sup>4</sup> The performance of the Modenese clothing exports was partly determined by the strong growth in the large-size exports, by Simint of Modena, belonging to the Armani group. The trend of increasing exports, however, concerns all the firms of the segment, including the smaller ones.

<sup>5</sup> In Carpi, where there the knitwear firms show greater propensity to export than the clothing firms (46.4% as against 25.8% in 2002) the distance between the two industries is less marked.



*Graph 2a - Clothing Industry*  
 Change in percentage of the export of the main export countries  
 (current price in dollar, 1996-2002)



Source: Chamber of Commerce of Modena on data from ISTAT and U.N.

Changing market also entails changing distribution channels and sales strategies. Increase of exports, in particular, involves selling a growing portion of the output to traders and the large chains. In other words, it implies, especially for the smaller firms, allotting an increasing share of output to operators whose ability to impact on the price and to establish the ways, times and conditions of supply is very important. During the 1990s, the importance of these categories, taken together, doubled (from 9.6% to 22%). In many cases this led to a shrinkage in the profit margin of the final firms of the district, and this in turn had a negative effect on the subcontractors. At the same time, and perhaps also by reaction to the process just described, the firms tended to diversify the distribution channels and to shorten the distribution chain. The most significant datum is the diminished amount of production allotted to the wholesalers (not fully accounted for by the increase for the large distribution) and the increase, though modest (from 33.9% to 37.7%), in sales to retail, on both the domestic and foreign markets. By the end of the decade — and for the first time in the history of the district — the sales to retail had become the most important way of distribution. Even

among the smallest firms (1-9 employees) one out of five dealt directly with specialized retailers. Lastly, a small but not negligible number of firms — and this, too, signals a novelty — were selling their output to other manufacturing firms.

Table 7 – Distribution channels – Percentages of total turnover

	1990	2002
Wholesale	55.2	34.8
Retail and franchising	33.9	37.7
Large distribution	9.5	15.4
Traders	0.1	6.6
Other producers	0.2	4.5
Other channels (catalogue sellers. etc.)	1.2	1.1

Changing markets and distribution channels has obvious effects on brand policies. Selling increasing amounts to the chains sometimes entails producing to the client's design but, above all, very often with the client's brand. Much the same is true of production to order from other producers. The net result is that the share of sales with own brand fell significantly during the period (from 79% to 64%), while the share of sales with brand on licence rose (from 2% to 8%) as did that of sales with the client's brand (from 19% to 27%). This represents an unmistakable weakening of the bonds with the final consumer.

Table 8 – Brand policy – Percentages of total output

	1990	2002
Firm's brand	78.7	63.9
Brand on licence	2.1	8.0
Buyer's/client's brand	19.2	27.2
No brand	0.0	0.9

Carpi was one of the first districts to extend outsourcing outside its boundaries.

The quest for low-cost labour and the condition of full employment, which characterized the local labour market as from the early 1980s, have made the district an 'open' system. However, the sources of labour in areas outside the district have changed in the course of time. In the 1960s and 1970s recourse was to artisans and female homeworkers in the neighbouring provinces of Veneto and Lombardy (especially Mantua and Rovigo). In the 1980s and 1990s the outsourcing was extended to some areas of the South and, to some extent, abroad.

Table 9 provides an estimate of the domestic employment and the equivalent external employment — generated, i.e., by orders from the Carpi firms, as regards both production stages and final product.

Table 9 – Employment in the Carpi district and equivalent employment in other areas – An estimate for 2001

<b>Employment in the Carpi district</b>	<b>9,081</b>
of which:	
- in final firms	4,214
- in subcontracting firms	4,867
Equivalent employment in subcontracting firms producing on commission from firms of Carpi based in <i>Other areas of Emilia-Romagna</i>	2,730
Equivalent employment in subcontracting firms producing on commission from firms of Carpi based in <i>Other regions of Italy</i>	2,756
Equivalent employment in subcontracting firms producing on commission from firms of Carpi based in <i>Foreign countries</i>	2,833
<b>Equivalent employment in areas outside the district</b>	<b>8,319</b>

Note: The estimate relies on the simplest, if not completely realistic, hypothesis that the productivity of labour is the same in the district and the external areas. Under different hypotheses, the equivalent employment would be greater.

Out of a total of about 17,400 employees just under half are in other areas. Outsourcing in the other regions of Italy involves more than 2,500 employees, 2,000 of these in the South. Employment in foreign countries overall reaches around 2,800. The essential datum is that in comparison with other regions and other districts specializing in textile/clothing (in particular, the Veneto) the outsourcing to outside Italy is fairly small.

This element is even more evident if the analysis is confined to the outsourcing of production stages. Table 10 shows the total cost of stages commissioned outside the district in relation to the localization of the subcontractors.

Table 10 – Cost of outsourcing of production stages of final firms by area of localization of subcontractors - percentages

	1990	2002
Emilia-Romagna	60.5	61.0
<i>of which, in the district of Carpi</i>	34.8	39.7
Other regions of Italy	31.2	24.3
Foreign countries	7.4	14.7

The period 1990-2002 witnessed a shift in outsourcing from other Italian regions to foreign countries. The majority of the stages, however, continues even now to be performed by subcontractors based in the district and the neighbouring provinces. It can be observed, in particular, that as from the mid-1990s a part of the stages outsourced elsewhere in Italy tends, to some extent, to return to Carpi. More will be said about this later. A productive system like Carpi — based on medium-high quality, short production runs and very quick response to market demand — requires that the majority of the stages be performed in areas within the district or nearby. Only more standardized products are outsourced to other regions or abroad.

### 3. *The 1990s: the strategies of the firms*

The processes dealt with hitherto can be better understood if one takes a closer look at the behaviour of the firms and, especially, those addressing the final market. For a more precise description of the corporate strategies the panel has been used to construct a typology of firms that will enable the relations between firm and market at the beginning and end of the period to be evidenced. To this end, cluster analysis (with the *K-means* method) has been applied to the

principal indicators of positioning on the market as available and common to both the 1990 archive and the 2002 one.<sup>6</sup>

The variables employed for the cluster analysis are as follows: 1. Distribution channels (% of turnover achieved through: wholesale; retail; large distribution (GDO); own shops or franchising; trading companies; other producers; other clients. 2. Markets (% export of turnover). 3. Brand policy (% turnover achieved with: own brands; brands on licence; client's brands; no brand). To these has been added a variable relating to the areas of outsourcing. 4. Outsourcing (% of production outsourced: in the district; elsewhere in the region; elsewhere in Italy; abroad). The most discriminating variables are, for both years considered, the wholesale, retail and GDO distribution channels and the use of own brands and client's brands. The variable of production to client's model — of which more later — was not present in the 1990 data collection and has been excluded from the 2002 analysis.

The cluster analysis performed on the final firms showed the presence of four groups of firms in 1990 and five groups in 2002. The 4 of 1990, also present in 2002 but with different importance, will be called as follows:

Group 1: firms dealing with retail; Group 2: firms dealing with wholesale and addressing the domestic market; Group 3: firms dealing with wholesale and addressing the foreign market; Group 4: firms dealing with large distribution (Tabs. 11 and 12).

Table 11– Groups of final firms identified by cluster analysis in the knitwear and clothing sector in the district of Carpi, 1990 - Values refer to the universe of the firms

	<i>Group 1</i>	<i>Group 2</i>	<i>Group 3</i>	<i>Group 4</i>	<i>Total</i>
<i>Distribution channels</i>					
· Wholesale	3.2%	87.4%	78.3%	14.7%	55.2%
· Retail	91.3%	9.4%	7.0%	9.5%	33.8%
· GDO	5.5%	3.1%	4.1%	73.7%	9.5%
· Other producers	-	0.1%	0.8%	-	0.1%
· Others	-	-	9.8%	2.1%	1.4%
<i>Export</i>	23.3%	8.6%	52.7%	60.3%	22.4%
<i>Client's models</i>	n.d.	n.d.	n.d.	n.d.	n.d.
<i>Client's brands</i>	3.5%	8.1%	72.4%	67.8%	19.2%
<i>Own brands</i>	91.6%	90.6%	27.6%	32.2%	78.7%
<i>Pronto moda</i>	7.1%	47.2%	7.5%	4.2%	27.0%
<i>Outsourcing areas</i>					
District	39.9%	27.4%	64.7%	17.8%	34.7%
· Elsewhere in Region	30.1%	24.9%	10.2%	53.5%	26.6%
· Elsewhere in Italy	30.0%	33.9%	24.2%	28.7%	31.2%
· Abroad	-	13.1%	1.0%	-	7.2%

Source: our elaboration of data from the Observatory of the textile/clothing sector in the district of Carpi

#### *Group 1: firms dealing with retail*

The first group includes very small firms that produce good quality garment, in very short runs, construct their own collection and sell under their own brand. These firms are mainly oriented

<sup>6</sup> See Bigarelli, (2002, pp. 121-137) for a precise description of the methodology.

towards the domestic market, with specialized retailers as their clients of reference. Their strategy is founded on quality production, swift response to the market and services to the retailer (reordering in season, substitution of unsold products, supply of special sizes, etc.). Almost all these firms feature 'programmed' production, taking orders on a collection presented well in advance of the selling season. Typically they produce and outsource production stages either wholly within the district or in the neighbouring provinces (70% in 1990, a little less in 2002). Precisely because they produce quality garment in very short runs and rapid times, the outsourcing chain is short and confined to the neighbouring areas. Stages or functions requiring very high investment and skills (such as design, modelling, creation of prototypes, weaving stages in knitwear, etc.) tend to stay within the district or in nearby areas. In particular, production in short runs and with quick delivery times is much less likely to be outsourced long distances away.

This group has played the major role in the competitive repositioning of the district: while in 1990 the firms with these characteristics accounted for 10% of the total in the district, this figure has risen to 25%, and the firms constitute the main nucleus, accounting for over 40% of the overall sales. In 1990 they exported less than one quarter of the output, as against today's figure of 38%.

Many of the medium-size and growing firms belong to this group. Unlike what many observers and researchers of the district think and/or recommend, this group is the one that has managed to hold out against the very heavy competition coming from other producers and other productive systems.

#### *Group 2: Firms dealing with wholesale and addressing the domestic market*

This is the most "traditional" group among Carpi's producers. In many ways the firms are similar to those described in the previous group: they are very small, they have their own collection and own brand; they do not usually produce to clients' models. But there are important differences. Not seldom the production runs are longer and the quality of the products is sometimes lower. These firms are distinguished by the fact that a large part of their output is destined for wholesale on the domestic market. Their design ability may at times be weaker: often the collection is finalized very close to the selling season, when the fashion trends have become clearer, and the firm adopts a structure of organization typical of 'pronto moda'. Even when not producing 'pronto moda', they are however able to ensure very rapid delivery times. Like the firms in group 1, they continue to feature great flexibility and ability to respond to the market, but they are much more vulnerable to volatile orders and more exposed to cost constraints arising from their use of a long distribution channel.

While these firms had enabled the district to hold out as from the mid-1980s, the end of the 1990s found them suffering more keenly from the competition from other areas of Italy and, though less frequently, imports from other countries. At the start of the period they accounted for 61% of all the firms, but the figure has dropped to one third. In the attempt to contain costs, also in virtue of production runs that are longer on average, the firms in this group have shifted their outsourcing from the southern Italian regions to foreign countries with lower labour costs. In 1990 they decentralized abroad a mere 13% of production stages, whereas in 2002 the figure exceeded 34%. While outsourcing abroad attempts to reduce costs, outsourcing to other regions of Italy aims also to exploit local skills and specializations (such as jeans in Marche, Abruzzo and Molise, or t-shirts in Puglia and Sicily, etc.).

Table 12 - Groups of final firms identified by cluster analysis in the knitwear and clothing sector in the district of Carpi, 2002 - Values refer to the universe of the firms

	<i>Group 1</i>	<i>Group 2</i>	<i>Group 3</i>	<i>Group 4</i>	<i>Group 5</i>	<i>Total</i>
<i>Distribution channels</i>						
· Wholesale	3.8%	75.8%	73.8%	14.0%	-	34.8%
· Retail	81.5%	11.0%	2.5%	6.8%	0.1%	37.7%
· GDO	3.6%	7.9%	13.9%	73.6%	4.1%	15.8%
· Other producers	-	0.7%	-	4.7%	75.1%	0.6%
· Others	11.1%	4.6%	9.8%	0.9%	20.7%	11.1%
<i>Export</i>	38.5%	13.7%	42.5%	77.1%	31.8%	36.8%
<i>Client's models</i>	1.1%	3.3%	51.5%	21.7%	74.6%	13.7%
<i>Client's brands</i>	2.6%	8.2%	90.8%	68.4%	99.9%	28.1%
<i>Own brands</i>	81.8%	87.3%	9.2%	29.0%	0.1%	63.9%
<i>Pronto moda</i>	7.8%	43.9%	38.9%	13.8%	41.3%	24.3%
<i>Outsourcing areas</i>						
· District	38.4%	33.7%	77.4%	28.6%	16.4%	39.5%
· Elsewhere in Emilia Romagna	28.4%	18.8%	18.6%	5.4%	47.7%	22.1%
· Elsewhere in Italy	29.0%	13.2%	3.5%	45.2%	35.9%	24.2%
· Abroad	5.1%	34.3%	0.5%	20.8%	-	14.5%

*Source: our elaboration of data from the Observatory for the textile/clothing sector in the district of Carpi*

#### *Group 3: Firms dealing with wholesale and addressing the foreign market*

The third group consists of firms which, like the previous ones, produce for wholesale but, on the contrary, are oriented towards the foreign market (with 53% of their turnover in 1990, 43% in 2002).

This group became more numerous during the period (with 30% of the firms in 2002 as against 21% in 1990), but remained fairly stable in terms of value of overall production of the district (12-13% of turnover of the district).

The firms produce almost exclusively with clients' brands (91% of their turnover in 2002) and to models provided by clients (52% in 2002) with a rapid response production based on local outsourcing.

#### *Group 4: firms dealing with large distribution*

During the period the number of firms producing mainly for large distribution remained almost stable (8.2% of the firms in 1990, 11.2% in 2002).

The production is medium/medium-high quality, with runs usually longer than those of the firms in the other categories. Production is almost always destined for export and sold under the client's brand. The collection is nearly always created through some form of collaboration with the distributor. Sometimes the models are provided by the client, but much more frequently the design and development of the models remain the task of the producer. In this sense, and unlike what happens elsewhere, certain of the key competences are not transferred to the distribution chain.

In a more marked way than in other firms, the producers operating for large distribution tend to shift the more labour-intensive stages to southern Italian regions or abroad, through various forms of outsourcing and outward processing trade (OPT). These are the firms that make least use of local

subcontracting, with shares of production outsourced to other regions of Italy and abroad respectively equal to 45% and 21% of the total.

In the district there is little presence of the set of medium and large firms having an important brand recognized by consumers and tending, not seldom, to complement their activity with own shops or sales points in franchising. In Emilia this group of firms is important (11% of firms of the region and about half of the turnover of the clothing industry in the 1990s), with brands like Max Mara, Mariella Burani, Maska at Reggio Emilia; Les Copains and La Perla at Bologna; Alberta Ferretti and Iceberg (Gilmar) at Rimini. Some of them have their own 'corners' in the large European chains (Harrod's in London, Galeries Lafayette in Paris, etc.). Most have their own shops in the main European cities. In Carpi the majority of the firms that could have aspired to the same role, over the last decade, have gradually disappeared, as was said, and only a few, created by the second generation of entrepreneurs, now position themselves at this level. The best known among these firms is Blumarine.

By 2002 another group of firms had emerged.

#### *Group 5: firms producing for other producers*

The phenomenon of final firms that decide to orient the greater part of their output to fulfilling orders from other domestic producers is quite a new one in the district. In Carpi, unlike in Tuscany or the Veneto, 'global' brands feature a modest presence. The problem is that global brands, especially when they hail from areas other than the specialized production system, tend to use the district as a specialized production centre, as a zone of manufacturing skills, thus severing the direct ties between the firm and the markets and consumers. The local firms lose control over the design, the brand and the direct relation with the market. When this occurs, as in the relations with the large chains, a situation may come about that is usually called "functional downgrading": activities of strategy relevance for the firm and the local system shift to the owner of the global brand. In these circumstances, at the extreme limit, the district may become a mere source of production stages — a 'captive system', as it is sometimes called.

To sum up, the comparison 1990-2002 shows up the markedly diminished importance of the firms working for wholesale oriented addressed to the domestic market (group 2), which, at the outset of the 1990s, featured the numerous "pronto moda" firms of the district. During the 1990s, the crisis in "pronto moda" led to a heavy downsizing in firms of this kind (Table 13 and Figure 3).

The group with the greatest growth is that of the firms working for retail (group 1). These firms increased in number and were the only ones to maintain their turnover for the whole period, increasing their economic importance within the district. As was said, in 2002 the overall sales made through the retail channel accounted for a larger share than the wholesale ones.

Table 13 – Size of the groups of final firms identified in the knitwear and clothing sector in the district of Carpi, 1990-2002 – Values refer to the universe of the firms

	Gruppo 3		Gruppo 4		Gruppo 2		Gruppo 5		Gruppo 1		Totale	
	a.v.	%	a.v.	%								
<i>Firms</i>												
1990	123	20.9	48	8.2	359	60.9	-	-	59	10.1	589	100
2002	108	30.2	39	11.1	106	29.7	14	3.8	90	25.3	357	100
<i>Employees</i>												
1990	1,064	14.0	527	6.9	4,059	53.4	-	-	1,952	25.7	7,603	100
2002	511	12.6	656	16.1	1,023	26.9	206	5.1	1,596	39.3	4,061	100
<i>Turnover (bn € 2002)</i>												
1990	158	12.1	102	7.8	651	49.9	-	-	394	30.2	1,305	100
2002	128	12.5	141	13.8	298	29.1	39	3.8	417	40.7	1,023	100
<i>Employees per firm</i>												
1990		8.7		11.0		11.3		-		32.9		12.9
2002		4.8		16.6		10.2		15.1		17.7		11.4
<i>Turnover per firm (bn € 2002)</i>												
1990		1.3		2.1		1.8		-		6.7		2.2
2002		1.2		3.6		2.8		2.9		4.6		2.9

Source: our elaboration of data from the Observatory for the textile/clothing sector in the district of Carpi

In general, the 1990-2002 comparison displays a greater diversification of corporate strategies and a consequently greater variety of types of firm. In 1990 the final firms of the district were very similar one to another: 60.9% of them belonged to one single type (group 2). In 2002 we find three types that comprise between one third and one quarter of the total firms: group 2, with 29.7%, group 3, with 30.2%, and group 1, with 25.3%.

In terms of turnover, while in 1990 the firms of group 2 were prevalent, with a turnover of 49.9% of the output of the district, by 2002 the primacy had passed to the group 1 firms, whose turnover was 40.7% of the total (Table 13).

In order to complete the picture of the change in behaviour of the firms during the decade, the same exercise has been attempted on the subcontracting firms. The results, however, are less interesting and will therefore not be reported.

For current purposes it will be sufficient to note that the subcontracting firms subdivide into three groups.

The first of these consists of firms with an above average number of employees; they specialize in performing two or three stages, produce mainly on commission from firms based in other regions and themselves make use of other subcontractors. These firms — accounting for some 3-4% of the total — effectively operate as ‘first level’ subcontractors, organizing the production of the ‘second level’ subcontractors and ensuring that the commissioner receives a substantially finished product. As can be understood, the borderline between these firms and the final firms that produce mainly to orders from other firms (group 5 above) is very uncertain. If the two groups are taken together, this suggests that the group of firms in the district operating on commission from other final firms based in other areas is close to 8%. It is an open question whether, and to what extent, the unfavourable situation affects the size of this group or, rather, whether there is an ongoing change in structure that leads to the emergence in the district of a not negligible group of firms operating as ‘make to order’ vis-à-vis other producers based elsewhere.

A second group — including 5-6% of the subcontractors — consists of very small single-stage firms producing on commission from other subcontractors, almost always a single subcontractor: these are the ‘second level’ mentioned above.

The third group — accounting for 90% of the subcontracting firms — comprises the typical subcontractors of the district of Carpi: firms specializing by stage, with an average size of 3-4

employees, which produce mainly to orders from the local final firms, without their productive capacity being tied down to the orders of any one producer. This group features very wide differences according to capacity, specialization (spooling, weaving, cutting, make-up, ironing, etc.) and market band.

By way of example, let us take the weaving firms and the make-up firms for reference. The former — together with the final firms that perform the design and development of the prototypes — are those in which the ‘key’ skills of the Carpi producers are concentrated. Though instances of corporate crisis and failure are not lacking, these subcontractors are fairly well protected against competition from firms based in other areas less endowed from a technological point of view and less able to produce high quality products and in short runs. The picture is a very different one for the make-up firms and, more generally, for the firms performing highly labour-intensive stages. Unlike the weaving firms, they are greatly exposed to price competition from the subcontractors based in the South and the Chinese workshops that began to spring up in Carpi in the late 1990s.

With reference to the characteristic specializations, in 2002 in the district and in the neighbouring communes there were 127 firms with foreign owners, regularly enrolled in the registers. The majority (106) of these belong to Chinese entrepreneurs and artisans<sup>7</sup>. To these must undoubtedly be added others operating in a completely clandestine way. Considering that the make-up firms present in Carpi in the same year totalled around 200, it becomes clear that the phenomenon is anything but negligible. It may even be that about half of the make-up stages — in terms of quantity — are performed in some clandestine way by the Chinese community. For that matter, Chinese labour not only costs little, it is also fast, reliable, prepared to work intensively and for long hours, and is fairly well trained for medium band production. Many Chinese workers, as far as we know, have a record of immigration in other specialized areas and come from regions with a tradition of clothing manufacture. Much the same is true of the ironing shops run by Pakistanis, though these are on a far smaller scale.

With regard to the local system, the spread of these firms has contradictory implications. On the one hand, it ensures a supply of labour in manufacturing for which the local provision of young persons is insufficient or not available. In this sense, the price competition with the producers from the South makes it possible to re-attract into the district, or into neighbouring areas, stages that were formerly commissioned from subcontractors in South Italy. On the other hand, and for the same reasons, it tends to “displace” the traditional workers and cohorts of female workers no longer young and still engaged in these stages. More generally, it fuels a “grey” area of irregular or semi-irregular labour, with adverse effects on the standards of wages and labour. The deterioration, at least potential, of the labour standards and the fact that the Chinese community tends to resist entry from outside may exert a further effect: the rules and social norms that have enabled cooperative relations among the firms and inside them may themselves become much more difficult to identify and to implement.

#### **4. Conclusions**

In the last ten years the knitwear and clothing industry of Carpi has undergone a very thorough downsizing in terms of quantities produced, employment and market shares, in relation both to producers in other countries and to other Italian productive systems.

This process has not featured significant phenomena of industrial concentration, with entry by large firms from other areas or the development of large-size firms. Although a nucleus of medium-size firms may currently be in a condition to take the place of the historic large-size firms, the

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<sup>7</sup> At the same date, in the province of Modena, the firms under foreign ownership with specialization in knitwear and clothing numbered 260, 230 of them Chinese. At provincial level, the first commune in terms of number of firms, situated on the boundaries of the district, is Mirandola, with 60 firms under Chinese ownership.

industrial structure continues to consist of small enterprises. The productive system retains a polyarchic structure, in which the leading firms are substantially absent. In other words, there is no sign of any emergence of hierarchic structures and relations among the firms, unlike what obtains in other industrial districts in Italy. Nor is there any evidence of those processes of functional downgrading of the firms that have been observed elsewhere. Whether this is an advantage or not remains to be seen. The essential datum is that, at most, there are only very weak signs of these phenomena.

Carpi and its firms have responded to the crisis in a different way — namely, by improving the quality and range of the products, diversifying clients and sales channels, and seeking new markets and new sources of labour. Unlike other productive systems and actors in the Italian fashion industry Carpi is not going global: up to now, the outsourcing abroad has been much more contained than in the Veneto or in Lombardy itself or the Marche, and the firms have a low level of internationalization in terms of direct foreign investment, international outsourcing and reliance on forms of outward processing trade. The very small size of the firms, the type and quality of the product, the production in very short runs and the very quick times of response to the market mean that this strategy is impracticable for the majority of the firms. Nonetheless, Carpi continues to sell desirable garment to a goodly part of the world.

In concluding, an obvious question arises. The problem, in an entirely conventional way, can be formulated as follows. Are the decisions of the firms of a short-term nature, dictated rather by necessity than by far-sightedness, or are they practicable in the long term? Most people think that decisions like those we have described above are not sufficient. To produce good things without controlling the product market, it is argued, is not enough. Others learn (or will very rapidly do so) to produce the same goods, better and better and at lower and lower costs. Faced with this, to import from the world with low-cost labour can only at best be a temporary palliative and brings its own problems. Either the firms grow (and acquire control of the sales channels and the market) or the productive system can survive only as a manufacturing centre controlled by the big brands or the big distribution chains. The other way out, often complementary and just as frequently proposed, is to reorient towards more standardized production and to rely massively on international outsourcing for the more labour-intensive products and stages. But if none of this happens, it is argued, the district as we know it today is doomed to irreversible decline. This may be a far-sighted prediction. In such a perspective there is no way out: Carpi, or what remains of it, would be the fashion factory of Italy in the new millennium, trimmed down to serve a small number of extravagant consumers.

The writer of this paper, however, can foresee some quite different outcomes. For, at the opposite extreme, Carpi, even if on a smaller scale than recently, could retain certain of its characteristics substantially unchanged and still continue to serve its usual markets and take its place in new markets opened by the big brands, providing quality products to consumers not necessarily tied to brand productions. There is nothing to prevent the leading firms and the brands from opening new markets and, in so doing, from creating opportunities for production and for the firms of the district, even for the smallest ones and those with the weakest links with the final consumer. This, indeed, is what is already happening with better-known firms present in the regional tissue.

At this level, in not a few cases, the collective action and the industrial policies at local level can create links with the new markets. In this sense the answer to the question posed above remains fully open. The dimensions of the local system and the ability shown by the firms to respond over the past decade fully justify the attempt.

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