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The industrial districts' contribution to change in the Italian economy

Fabio Sforzi*

Between 1981 and 2001 Italy became a services-oriented economy. The loss of jobs in manufacturing was less pronounced in Italy's organized industrial districts than in the rest of the country. The branches of manufacturing that typify the districts outperformed the others in terms of employment trends. In addition, the districts recorded larger employment gains in business services, including ICT-related services. In more recent years (2001-2004) these trends have weakened in the industrial districts, which now seem vulnerable to the repercussions of global economic transformation. Whatever the causes of this vulnerability, they do not include the size of district firms. The district mode of production is the one best able to cope with fragmented and variable demand, but it is not equally well suited to competing on mass markets. If market developments are one cause of the districts' more recent problems, institutional factors also must be considered, in the light of the fact that after fifteen years of targeted industrial policy measures the districts are weaker, not stronger.

1. Introduction

The district-based approach to the study of industry shifts the focus of attention from the firm itself to the place where the firm, whether small or large, conducts all or part of its productive activity. Each place has its own value system, way of organizing production and social and political institutions. The modes of interaction between households, firms and institutions differ from place to place and vary in intensity over time. In the places where industry is most deeply rooted, such interaction has engendered a typical local industrial culture (Sforzi, 2005). This applies equally to Prato and Turin, whatever the differences between the two cities' models of

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industrial organization, the former's district-based, the latter's neo-Fordist.

This approach to the firm as a localized production process allows us to redefine the "drivers" of Italian industrial development; to consider them in terms not of large firms and SMEs, but of local systems constituted in different ways, some centring on a large company connected with the other firms by a hierarchical relationship, others composed of a population of small and medium-sized enterprises linked by flexible relations of cooperation and competition.

The empirical studies carried out in Italy in the last ten years (Istat, 1996, 1997 and 2005) have shown that most local systems, whether based on large companies or SMEs, specialize in a single industry, flanked in the majority of cases by auxiliary industries and service companies that supply dedicated inputs. Among the specialized local systems, those based on SMEs correspond to the industrial districts (Istat, 1996 and 2006a).

This article examines the industrial districts' contribution to change in the Italian economy. In order to make this exercise more effective, we shall compare their performance with that of other types of local system.¹

¹ Industrial districts are productive and, more in general, social organisms that change over time. Change is the key to their viability, but it can also cause them to disappear or to evolve into different forms of organization of production. The identification of industrial districts according to the Sforzi-Istat method applied to 1991 census data (Istat, 1996; Sforzi and Lorenzini, 2002) and revised in 2001 (Istat, 2006a) takes the local labour system as the unit of analysis (Istat, 1997). Local labour systems are territorial spheres in which most of the daily activity of the people who live and work in them takes place. All of Italy's territory is divided into local labour systems, whose boundaries and number fluctuate with changes in the location of production units and also in the residence of locally employed workers who commute to their jobs and return home at the end of the day. Local labour systems were first mapped in Italy using the 1981 population census (Istat-Istat, 1986). The map was updated in 1991 and 2001 (Istat, 1997 and 2006). The industrial districts referred to in this article are those identified in 1981 and 2001 on the basis of the census data for those two years on local labour systems. The results presented here are part of a research project, headed by the author, developed by Istat together with the Economics Department of the University of Parma. The author thanks Franco Lorenzini of Istat for agreeing to allow some of the research results to be published in advance in this paper. When Istat published the results of the 2001 census of industry and services, it included backward projections (starting from 1971) of the 2001 economic data for local labour systems and industrial districts, although it was well aware that neither the systems nor the districts had been configured in the earlier years as they were in 2001. Consequently, an analysis of the industrial districts using the data by district in the 1971-2001 time series could lead to misinterpretation of economic changes in the districts.

2. Economic change in Italy (1981-2001)

The number of employees rose by 15.0 per cent between 1981 and 2001, a period corresponding to the last two ten-year intervals between censuses. The overall growth in employment was driven by services (except traditional services). In particular, the number of jobs in business services more than doubled (*Table 1*).

By contrast, employment in manufacturing fell by 15.9 per cent. The overall figure conceals disparate sectoral trends. Only engineering added jobs (2.0 per cent), while all the other branches of manufacturing shed workers. The contraction was sharpest in basic metals (51.7 per cent), followed by textiles and clothing (36.1 per cent), transport equipment (33.3 per cent), then the industries that produce personal and household goods (leather products and footwear, 25.6 per cent; furniture, wood products, ceramic tiles, etc., 20.5 per cent), chemicals, plastics and refined oil products (18.4 per cent) and all the others (*Table 2*).

These employment changes partly altered the hierarchy of Italian industry's product specialization. Engineering continued to rank first, household goods ousted textiles and clothing from second place, and food products took over fourth place from refined oil products. The remaining industries maintained their previous positions. Clothing and textiles, basic metals and transport equipment saw significant declines in their shares of total manufacturing employment (3.9, 1.6 and 1.5 percentage points respectively).

3. Italy: an industrial country

After this contraction in manufacturing employment, to what extent does Italy remain an industrial country? In 1981 manufacturing still accounted for a larger share of total employment than services (excluding traditional services, which include public administration): 34.5 against 29.9 per cent. By 2001 the situation was reversed, with manufacturing's share down to 25.3 per cent, far below service's 42.2 per cent.

The number of jobs in business services more than doubled in 20

years and the gain in total employment share by services (8.5 percentage points) nearly equaled the loss in manufacturing (9.3 points). This is not to say that what occurred was a one-for-one substitution of employment. Rather, in some cases industrial growth was reflected in a gain in employment not in manufacturing but in business services. In all likelihood this is what transpired in the industrial districts, where the expansion of industry led to an increase in the number of firms, particularly those specialized in business services, as the industrial apparatus gradually renewed its technology and internationalized its commerce and production.

The census data show that the shift towards services concerned all the local manufacturing systems, but with varying intensity. The sharpest growth took place in the industrial districts (142.0 per cent), which by 2001 accounted for 20.8 per cent of national employment in business services, more than double the share of the other local manufacturing systems, and fully 39.3 per cent of all jobs in manufacturing. Naturally, employment in business services also grew in the “metropolitan systems”, which supply services to the rest of the Italian economy (*Table 3*).

4. The districts have kept industrial Italy from vanishing

The contraction in manufacturing employment in the last two decades of the century followed uninterrupted growth lasting up to 1981 — as late as the decade 1971-81 manufacturing jobs had increased by 14.3 per cent. The decline was not only statistically evident but, since it involved every industry except engineering, broadly based as well; that is, it was not the outcome of specific sectoral crises, although the reduction in employment in some sectors was sharper than in others or made more news (for example, the steel and automobile industries).

It would be unreasonable to think that the industrial districts could have been immune from this general downtrend. Nevertheless, thanks to their mode of organizing production, in which the initiative lies not with a single company but with a large number of firms, and their productive and commercial versatility, the districts are quickest to seize

the opportunities for growth and more resilient in the face of a crisis (there are always a certain number of innovative firms that are able to renew their product range and processing methods and find new outlet markets). More resilient, that is, unless the crisis lasts so long that it irremediably consumes the capital of trust that is a decisive constituent factor of industrial districts (Dei Ottati, 2003).

In some sectors, industrial Italy does not coincide with the districts. In steel and automobiles, for instance, the districts cannot prevent the vanishing of industrial Italy, but this is not true of the typical Italian goods industries, where the districts hold an important position even though some of their production is based outside their territories. Put differently, these sectors do not fall completely within the compass of industrial districts. Some are quite extensively district-based, others less so (for example, the production of household goods is one of the least “districtualized” sectors). It is important, therefore, to verify whether district or non-district status influenced individual sectoral trends.

All industrial districts outperformed the other local systems forming the rest of Italy's economy in terms of employment in the sectors in which they specialize or those located within their territories. Even when developments were negative, they were less so in the districts (*Table 4*). And the engineering industry's positive employment performance (+2 per cent) was itself the result of two divergent trends: a 5.3 per cent loss in the non-district local systems and a 15.7 per cent gain in the districts.

In short, the districts were less vulnerable and more reactive than the non-district systems to the processes of economic change.

5. The change in the size structure of production units

Turning to the change in Italian industry's structure by size of production units, we find that the decline in manufacturing jobs in 1981-2001 involved all size classes except small firms (10-49 workers). The latter's gain in the industrial districts was larger than in the other local manufacturing systems but smaller than that recorded in the metropolitan systems (*Table 5*).

The districts nevertheless remain characterized by small firms. They account for almost half (45.8 per cent) of total national employment in manufacturing firms of this size class. And although employment in micro-firms is more evenly distributed, in this case the districts again account for the largest share (37.6 per cent).

Medium-sized firms have been attracting the interest of scholars and politicians in Italy ever since the idea took hold that they represent the fourth phase of Italian capitalism, after those based on large private corporations, State-owned companies and industrial districts (Colli, 2002). Without going into the merits of that debate, it is worth noting that the districts are home to the greatest number of jobs in medium-sized manufacturing companies (*Table 5*). And if the districts' size structure remains centred on small production units, it is also true that medium-sized firms' share of employment in the districts is not far smaller than their share in other local manufacturing systems — or even greater, depending on how one defines medium-sized firms (*Table 6*).

These data at least suggest how very misleading is the contrast between a “fourth capitalism” and district capitalism. If they are not one and the same thing, this is because in one case the analytical unit adopted is the firm, shorn from the fabric of the local productive, social and institutional environment that influences its competitive success (Porter, 1999), and in the other case it is, precisely, the local environment, the place (or local system) to which the firm belongs, that is treated as the true production unit. Attention to the firm's local context is not a prerogative of the district approach, but belongs to a tradition of interpreting economic reality that looks at production through the lens of the way in which it is organized in the territory. This slant implies an industrial policy approach that relies not on incentives to firms but on the public goods that the local and intermediate institutions, on their own initiative or following the lead of the central government, hence through a process of inter-institutional cooperation, make available to the collectivity of local firms.²

² On the problem of creating an institutional architecture for local development, see Servalli (2006).

6. Other aspects magnifying the industrial districts' importance for the Italian economy

We have already remarked that the growth of employment between 1981 and 2001 was led by services, particularly business services, and that it was especially vigorous in the industrial districts. This shows that the co-location of manufacturing activities and business services is not necessarily the result of deindustrialization. On the contrary, it suggests that a mechanism of specialization/integration may have been at work within local industry, leading to a new division of labour and the development of new production know-how as a result of the competitive evolution of the industrial apparatus. To put it differently, the growth of business services may reflect local industry's commercial and technological progress, not its decline —provided that the two activities are actually integrated, which only field surveys can confirm or disprove.

An aspect of Italian economic change on which a lively debate is under way is the diffusion of the new information and communication technologies (ICT) in manufacturing. Their presence is considered decisive for the growth of a local system's productivity.³

Between 1981 and 2001 ICT-related jobs grew by 77.9 per cent nationally.⁴ This average figure conceals highly disparate developments across the component sectors. ICT employment fell by 16.6 per cent in manufacturing, while it surged by 584.0 per cent in services and rose by a comparatively very modest 20.8 per cent in telecommunications (*Table 7*).

The industrial districts' overall gain of 62.6 per cent in ICT employment was driven by the service component (+658.3 per cent). The districts outperformed the other local manufacturing systems by far, not only in services but also in the components where ICT employment diminished: manufacturing and telecommunications. While the latter component is typically located in metropolitan systems, which account

³ This section anticipates some of the results of the research project on the localisation of ICT activities in Italy that the author is conducting together with Andrea Lasagni at the Economics Department of the University of Parma.

⁴ The definition of ICT adopted here is the one proposed by the OECD (2000), modified by excluding commercial activities. On this point, see Iuzzolino (2002).

for fully 67.8 per cent of the sector's employment nationwide, the districts' share of the manufacturing component of ICT employment is considerable (21.3 per cent).

We see, then, that the diffusion of ICT in the industrial districts has been very substantial as a whole, certainly not less than in the other local systems. As to the breakdown of ICT employment in the districts, the bulk is found in the service component, as in the other local systems, but more markedly so, followed by the manufacturing component, where the share is somewhat lower than in local manufacturing systems but far higher than in the other local systems.

In the absence of statistical confirmation, it is hard to assess the extent to which this presence of producers of ICT goods and services in the districts has boosted productivity and helped to generate the positive externalities that some think could lead to the creation of a national ICT supply chain (Sterlacchini, 2005). But, in any event, an industrial policy directed towards that goal cannot ignore the fact that ICT activities are located in the industrial districts as well as in metropolitan centres. Contrary to the impression one gets from certain research reports serving to support governmental policy (Fondazione Cotec, 2005), industrial strategies to foster the birth of technology districts on the one hand and to promote the technological evolution of the industrial districts on the other are not mutually exclusive but complementary strategies.

7. Recent changes (2001-2004)

The period 2001-04 brought continued growth in total employment (4.5 per cent) but also a further loss of jobs in manufacturing (5.0 per cent), according to calculations based on Istat's ASIA-UL 2004 Archive.⁵ The current state of the Archive does not allow us to update our analysis of the industrial districts with the method adopted above.⁶

⁵ The archive is a statistical register of firms' local units and workforces. The data, released in 2006, are calculated as annual averages and thus are not comparable to those of the General Census of Industry and Services. In addition, ASIA-UL's field of observation differs from that of the 2001 Census, so that the two statistical sources can be compared only by reconstructing the census data on the basis of the register's reference population.

⁶ In the data on employment by local system available online (www.istat.it), manufacturing is included in "industry excluding construction" and business services in "other services".

However, our estimates indicate that employment grew more slowly in the districts than in the other local systems (2.7 against 5.1 per cent), reversing the previous trend. Consequently, the districts' share of total employment appears to have declined slightly. It is not possible at present to determine which sectors of economic activity were responsible for districts' modest performance, although the loss of jobs in manufacturing at national level makes it unlikely that manufacturing was not involved.⁷

8. The industrial districts left to fend for themselves

8.1 National legislation on the districts: a lost opportunity. The story of official recognition of Italy's industrial districts can be seen as a curve spanning fifteen years, commencing with Law 317/1991 and ending with the Finance Law for 2006. In the field of industrial policy, the downward arc from the zenith describes a regression in the concept of district even more than the evolution of formal public policy measures for the districts.

At the start of the period national legislation intended the term "industrial district" to mean a local system specializing in an industry, organized through cooperation among small and medium-sized enterprises; now the term simply denotes a free association of firms. The place, the context of local society and institutions, which had been a constituent factor of the district model of the organization of production, has been reduced to an instance of the general tendency of firms to cluster geographically.

⁷ In the Note presenting ASIA-UL 2004, Istat cautiously proposes an analysis of the change in the districts between 2001 and 2004 based on the variation in the number of employed persons per 1,000 inhabitants of working age (15-64). Although this method of measuring the change differs from the one we have adopted here, it is worth noting the results, since, even though they offer no comparison with developments in the other local systems, they have helped to shape the current opinion that the districts have been struggling and lost competitiveness in recent years. The Note observes that in the period 2001-2004 the largest declines were recorded in the districts specialized in textiles and clothing and in leather goods and footwear. It also remarks that even where employment did rise, the gains were very small, whereas where it declined the losses were decidedly larger. Lastly, it reports that the number of workers in manufacturing per 1,000 inhabitants of working age contracted in 78 per cent of the districts (Istat, 2006b, p. 7).

As to the drift of policymaking, national legislation that had sought to coordinate and guide regional policies for the industrial districts gave way to a dispute on the parameters the regions were to use to identify districts; in the end the matter was settled by allowing each region to decide as it saw fit.⁸

The central government's *laissez-faire* stance encouraged lobby-based regional determinations of industrial districts that were not subject to any reality check.⁹ Each region designed its own map of the districts and decided its own policies. In the absence of evaluation reports by independent research centres, it is difficult to determine precisely how effective these policies were.¹⁰ The theme of the "crisis of the districts" that recurs in the literature, the press and government documents, and that also emerges in part in our analysis, suggests that they were ineffective at best or plainly misconceived insofar as they encouraged a relocation of production, with predictable repercussions on local employment (Spaventa and Monni, 2007).

In any case, what counts for the purposes of our argument is that with this devolution of powers to the regions the central government affirmed that the industrial districts were not a national industrial policy priority. An essential prerequisite for a national policy is a map of the industrial districts, agreed upon by the central and regional governments. In European countries where national industrial policy is also territorially articulated, the central government's role begins with validation of the places selected for policy implementation, as in

⁸ This is what happened with the passage of Law 140 of 11 May 1999 ("Provisions concerning productive activities"). A reconstruction of this phase of the district experience is found in IPI-Ministero delle Attività Produttive (2002).

⁹ The *laissez-faire* principle adopted by the government of that time reflected the then widespread conviction that the districts were "winning systems that did not require specific resources or measures", as Andrea Balestri remarks in his paper, "Industrial policies for the districts" (no publication date). For that matter, in countless conferences there were some who argued that the national government should not concern itself with the industrial districts, that the regional governments and local authorities should be given free rein. The error lay in thinking that local policy measures were sufficient to keep the industrial districts competitive in an age of globalization; i.e., that it was sufficient for firms to learn through their dealings with customers and competitors. Balestri points out that up to 1995, when the Club of Districts was founded, the districts themselves "had not bothered to get together to demand measures on their behalf".

¹⁰ A region-by-region analysis of economic change in the districts could shed light on the differing effectiveness of regional policies.

the case of the competitiveness poles and rural excellence poles in France.¹¹

8.2 A new leaf: a national policy for the industrial districts. To affirm that the central government must play a role in policymaking for the industrial districts implies, first of all, recognizing the importance of the national school, university and research system for the competitive success of the districts.¹²

Specialized skills are among the chief determinants of districts' competitive edge and are formed on the job (Sforzi, 2005). The scope for their development is greater if the persons employed in a district have received general and technical education preparing them to acquire state-of-the-art expertise and apply it in the workplace. The modest level of schooling of the people employed in most industrial districts is well known. One of the tasks of national policy should be to help raise the educational level through "district projects" that employ such means as scholarships and internships to encourage and reward further education and access to courses in science and technology.

At the industrial policy level, the development of new lines of high-tech production so as to modify Italian industry's product specialization is a reasonable objective that must be pursued resolutely. From the inception, however, efforts in this direction should take into account the likely spillovers on the industrial districts in terms of enhanced competitiveness and as well as the creation of new product and supply chains.

Like the production of goods and services, scientific and technological research takes place both *in* and *between* places, through "networks of places" participating in a project. Ordinarily, such networks are formed in order to share specific skills and competences for common objectives. They can embrace both local systems of high-tech firms,

¹¹ The French government's approach to industrial policy is based both on sectors and places, but the Italian government appears to ignore the existence of the latter when it compares its own industrial policy programmes with those of France (Ministero dello Sviluppo Economico, 2006).

¹² There is a growing body of literature in Italy on the relationship between universities and local development that also considers the experience of the industrial districts. In her recent book on the subject, Laura Ramaciotti writes: "The hallmark of the districts of the Emilia Romagna region had been strong interrelations between firms, business associations and local institutions, which together gave shape to a solid and dynamic social context ensuring continuous product innovation without generating social cleavage. In the past several years the universities and public research centres of the region have also become part of this context (Ramaciotti, 2006, p. 10).

usually corresponding to the main metropolitan and university centres, and industrial districts positioned on the frontier of innovation in their product sectors.¹³

Industrial districts are not all the same. Some are more advanced than others, and there is no theoretical or practical reason why one industrial policy should fit all. On the contrary, a national industrial policy must take the differences between districts into account and necessarily be selective, intervening only for those that can act as engines for all the others of the same type.

Like the creation of technology districts, action to improve the competitiveness of the industrial districts, or even of only some of them, helps to boost the competitiveness of the entire national economy. This fundamental truth can escape no one. The problem is that it must not be forgotten in designing the country's industrial policy. Yet, even today the programmes for the competitiveness of the districts aim simply at increasing firm size.¹⁴

9. Conclusion

The districts have successfully kept industrial Italy from vanishing, as the employment statistics show. And it is mainly thanks to the evolution of their industrial apparatus that the conversion of the Italian economy towards services has been marked by a shift from manufacturing towards services rather than outright deindustrialization.

Although the diffusion of the new information and communication technologies is still modest at national level, it is greater in the industrial districts than in the other local systems. Analysis of the

¹³ Opposition between industrial districts and cities, to some extent fostered by the European Union's regional policies and gaining ground in Italy and elsewhere, should not be tolerated, let alone encouraged, by those responsible for industrial policy. The idea that cities contribute more than the districts to national economic growth is as mistaken as was the past notion that the districts counted more than the cities or local systems of large companies. This continual chasing after a leading model to which to entrust the destiny of Italian industry prevents us from understanding the simple truth that the real strength of a country's economy is the variety of models, each making a specific contribution. This does not preclude priorities in industrial policy, but the priorities must be set without bowing to passing fads (for which, it must be admitted, academics are as much to blame as are the politicians).

¹⁴ An instance is the current government's draft bill on "Measures for industrial innovation".

employment structure shows that the districts are at least on a par with the other local systems in their endowment of firms producing ICT goods and services.

The industrial districts' greater innovative capacity indicates that they can play a decisive role for the development of Italian industry, provided they are not relegated to being merely defensive earthworks for traditional Italian goods.

A growing number of studies confirm that geographical and organizational proximity between firms that operate in correlated branches of economic activity fosters higher productivity and innovation. This applies to traditional and high-tech sectors alike. Accordingly, strategies of industrial development are gaining ground, in both the industrial and emerging countries, keyed not to the abilities of individual firms, however large, but to groupings of firms called "clusters" or "districts", depending on the school of thought.¹⁵ If for the developing countries the problem is how to promote their birth, for the industrial countries it is a question of exploiting the districts that either are traditionally part of their economic fabric or have been created through public measures (as the great majority of the Italy's technology districts) as industrial policy instruments. Provided that it involves more than merely repackaging sectoral policies under new names (industrial districts, technology districts, agricultural districts, etc.), the approach to industrial policy that adopts the industrial district as the unit of analysis shows that industrial districts, like purpose-designed technology districts, can contribute to the general objective of modifying Italian industry's sectoral specialization.

The current industrial districts, whose vitality is known, and the future technology districts, whose vitality remains to be proved, are two models of territorial innovation that must not simply coexist within the framework of a national industrial policy but mesh together through inter-district production networks that will also create scope for developing new industries, using these new industries' products as production inputs in the districts' existing industries, and possibly, with

¹⁵ On the evolution of the two concepts, the obligatory references are Porter (1991 and 1998) and Becattini (2000 and 2006). For the developing countries, see, among others, Van Dijk and Sverrisson (2003).

the help of centrally coordinated public measures, shifting at least part of the local industrial apparatus towards new high-tech sectors.¹⁶

The approach to district-based innovation indicated in this paper is set in the context of an overall industrial policy strategy geared to improving the competitiveness of the national economy. It lays little emphasis on the steps that districts may take or have already taken to internationalize production, although the evidence suggests that their moves to relocate production abroad have been designed not so much to achieve innovation as to reduce production costs and facilitate local market penetration.

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¹⁶ On the question of inter-district relationships on an international scale, see Bellandi (2006).

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Appendix

The industrial districts' contribution to change in the Italian economy

Table 1 – Workers in local production units in industry and services in Italy, 1981-2001				
Sector	% change 1981-2001	% share		Number
		1981	2001	
INDUSTRY				
- Agricultural activities ^(a) :	+9.1	0.6	0.6	118,567
- Mining and quarrying:	-39.9	0.4	0.2	37,214
- Construction	+28.4	7.1	7.9	1,530,917
- Manufacturing	-15.9	34.5	25.3	4,906,315
SERVICES^(b)				
- Business	+123.7	8.9	17.3	3,367,930
- Consumer	+46.9	6.7	8.5	1,652,507
- Social	+31.0	14.3	16.3	3,161,293
- Traditional	-0.2	27.5	23.9	4,635,813
Total	+15.0	100.0	100.0	19,410,556
<p>(^a) Refers to the agricultural “manufacturing” activities included in General Census of Industry and Services (Istat, 2001).</p> <p>(^b) Classification of services introduced by the 1991 General Census of Industry and Services (Istat, 1997) and subsequently applied to analysis of the industrial districts (Istat, 2006a).</p> <p>Fonte: Based on Istat’s General Censuses of Industry and Services, 26 October 1981 and 22 October 2001.</p>				

Table 2 – Workers in local production units by branch of manufacturing in Italy, 1981-2001				
Branch	% change 1981-2001	% share		Number
		1981	2001	
Textiles and clothing	-36.1	16.3	12.4	607,776
Hides, leather products and footwear	-25.6	4.7	4.2	206,035
Household goods	-20.5	14.0	13.2	647,284
Machinery and equipment	+2.0	30.3	36.8	1,804,642
Jewellery, musical instruments, etc.	-2.0	1.1	1.2	63,320
Food products	-6.7	8.3	9.2	452,483
Basic metals	-51.7	3.6	2.0	100,201
Rubber and plastic products	-18.4	9.4	9.1	447,489
Transport equipment	-33.3	7.2	5.7	279,800
Paper products, publishing and printing	-8.8	4.8	5.2	257,248
Manufacturing industry ^(a)	-15.9	100.0	100.0	4,906,315
<p>(^a) Includes “other” branches of manufacturing.</p> <p>Source: Based on Istat’s General Censuses of Industry and Services, 26 October 1981 and 22 October 2001.</p>				

Table 3 – Workers in local production units in industry and services in industrial districts and other local systems, 1981-2001

Sector	Industrial districts	Manufacturing local systems ^(a)	Non-manufacturing local systems		Italy
			Metropolitan ^(b)	Other	
PERCENTAGE CHANGE 1981-2001					
<i>INDUSTRY</i>					
- Agricultural activities ^(c)	+2.1	+31.0	+28.0	+4.8	+9.1
- Mining and quarrying	-23.4	-38.5	-16.5	-50.3	-39.9
- Construction	+34.5	+30.2	+86.0	+4.2	+28.4
- Manufacturing	-7.7	-32.4	-1.6	-24.7	-15.9
<i>SERVICES ^(d)</i>					
- Business	+142.0	+78.1	+150.1	+98.6	+123.7
- Consumer	+75.7	+28.9	+92.1	+15.2	+46.9
- Social	+48.4	+9.4	+50.1	+18.1	+31.0
- Traditional	+10.9	-16.0	+14.3	-11.0	-0.2
Total	+19.2	-9.0	+42.3	+2.9	+15.0
PERCENTAGE SHARE 2001					
<i>INDUSTRY</i>					
- Agricultural ^(c)	20.6	11.0	12.6	55.8	100.0
- Mining and Quarrying	22.7	12.5	17.1	47.7	100.0
- Construction	27.2	12.9	23.0	36.9	100.0
- Manufacturing	39.3	16.7	22.1	21.9	100.0
<i>SERVICES ^(d)</i>					
- Business	20.8	9.7	41.8	27.7	100.0
- Consumer	21.2	9.8	33.0	36.0	100.0
- Social	19.4	10.5	31.7	38.4	100.0
- Traditional	19.1	10.0	34.5	36.4	100.0
Total	25.4	11.9	31.0	31.7	100.0
^(a) Local systems based on large companies or specializing in branches of economic activity where most employment is in large production units (at least 250 workers). ^(b) Includes Turin (in 2001), Milan, Genoa, Venice, Bologna, Florence, Rome, Naples, Bari, Catania, Palermo and Cagliari. ^(c) Refers to the agricultural "manufacturing" activities included in General Census of Industry and Services (Istat, 2001). ^(d) Classification of services introduced by the 1991 General Census of Industry and Services (Istat, 1997) and subsequently applied to analysis of the industrial districts (Istat, 2006a).					
Source: Based on Istat's General Censuses of Industry and Services, 26 October 1981 and 22 October 2001.					

Table 4 – Workers in local production units of manufacturing industries located in industrial districts and the rest of Italy, 1981-2001 (% share: Italy = 100)

Branch	Industrial districts	Rest of Italy	Industrial districts	
	% change 1981-2001		% share 2001	Workers 2001
Textiles and clothing	-31.1	-41.8	57.7	350,707
Hides, leather products and footwear	-24.1	-27.7	60.4	124,543
Household goods	-17.0	-22.8	42.1	272,585
Machinery and equipment	+15.7	-5.3	39.3	709,456
Jewellery, musical instruments, etc.	+44.1	-38.6	65.0	41,187
Food products	-1.8	-8.5	27.3	123,386
Basic metals ^(a)	-	-	-	-
Rubber and plastic products	+2.4	-25.4	31.5	141,114
Transport equipment ^(a)	-	-	-	-
Paper products, publishing and printing	-3.1	-10.8	28.5	73,209
Manufacturing industry	-7.7	-20.4	39.3	1,928,602

^(a) No districts in this branch.

Source: Based on Istat's General Censuses of Industry and Services, 26 October 1981 and 22 October 2001.

Table 5 – Workers in local production units of manufacturing industries by size of unit in industrial districts and other local systems, 1981-2001

Size class	Industrial districts	Manufacturing local systems ^(a)	Non-manufacturing local systems		Italy
			Metropolitan ^(b)	Other	
PERCENTAGE CHANGE 1981-2001					
Up to 9 workers	-3.5	-12.4	+12.0	-12.4	-4.6
10 - 49	+12.1	+1.9	+21.5	-7.7	+7.3
50 - 249	-12.6	-13.8	+9.5	-28.5	-12.8
250 - 499	-23.9	-30.5	-15.1	-34.7	-26.0
500 - 999	-49.2	-39.2	-31.1	-56.1	-44.0
1,000+	-75.1	-74.8	-43.3	-72.9	-66.9
Total	-7.7	-32.4	-1.6	-24.7	-15.9
PERCENTAGE SHARE 2001					
Up to 9 workers	37.6	12.2	21.7	28.5	100.0
10 - 49	45.8	14.1	18.9	21.2	100.0
50 - 249	44.0	16.4	20.8	18.8	100.0
250 - 499	33.1	24.7	23.8	18.4	100.0
500 - 999	19.7	29.6	29.7	21.0	100.0
1,000+	9.4	36.0	41.2	13.4	100.0
Total	39.3	16.7	22.1	21.9	100.0
<p>^(a) (a) Local systems based on large companies or specializing in branches of economic activity where most employment is in large production units (at least 250 workers). ^(b) Includes Turin (in 2001), Milan, Genoa, Venice, Bologna, Florence, Rome, Naples, Bari, Catania, Palermo and Cagliari.</p> <p>Source: Based on Istat's General Censuses of Industry and Services, 26 October 1981 and 22 October 2001.</p>					

Table 6 – Workers in local production units of manufacturing industries by size of unit in industrial districts and other local systems, 2001 (percentage shares)

Size class	Industrial districts	Manufacturing local systems ^(a)	Non-manufacturing local systems		Italy
			Metropolitan ^(b)	Other	
Up to 9 workers	24.7	18.8	25.4	33.6	25.8
10 - 49	38.8	28.1	28.5	32.2	33.3
50 - 499 ^(c)	33.0	34.1	30.5	26.7	31.2
– 50 - 249	26.9	23.5	22.7	20.6	24.0
– 250 - 499	6.1	10.6	7.8	6.1	7.2
500 - 999	2.3	8.1	6.1	4.4	4.6
1000+	1.2	10.9	9.5	3.1	5.1
Italy	100.0	100.0	100.0	100.0	100.0

^(a) Local systems based on large companies or specializing in branches of economic activity where most employment is in large production units (at least 250 workers).

^(b) Includes Turin (in 2001), Milan, Genoa, Venice, Bologna, Florence, Rome, Naples, Bari, Catania, Palermo and Cagliari.

^(c) Corresponds to the size class adopted by proponents of the centrality of medium-sized companies for the Italian economy (Mediobanca-Unioncamere, 2004). According to the European Commission's definition, instead, medium-sized firms correspond to the size class of 50-249 workers. This definition is the standard reference point for the EU member states, the Commission, the European Investment Bank and the European Investment Fund in deciding industrial policy measures in favour of small and medium-sized enterprises (European Commission, 2003).

Source: Based on Istat's General Census of Industry and Services, 22 October 2001.

Table 7 – Workers in ICT in industrial districts and other local systems, 1981-2001					
Sector	Industrial districts	Manufacturing local systems (*)	Non-manufacturing local systems		Italy
			Metropolitan (*)	Other	
PERCENTAGE CHANGE 1981-2001					
Manufacturing	-15.4	-66.3	+15.1	+0.4	-16.6
Services	+658.3	+328.9	+607.0	+619.4	+584.0
Telecommunications	-34.3	-63.7	+73.4	-9.2	+20.8
Total	+62.6	-35.2	+143.8	+82.7	+77.9
PERCENTAGE SHARE (ITALY = 100) 2001					
Manufacturing	21.3	11.3	46.6	20.8	100.0
Services	16.4	7.5	54.6	21.5	100.0
Telecommunications	5.6	3.6	67.8	23.0	100.0
Total	16.0	7.9	54.5	21.6	100.0
PERCENTAGE SHARE (TOTAL ICT = 100) 2001					
Manufacturing	38.3	41.0	24.5	27.6	28.7
Services	55.9	51.5	54.7	54.6	54.6
Telecommunications	5.8	7.5	20.8	17.8	16.7
Total	100.0	100.0	100.0	100.0	100.0
<p>(*) Local systems based on large companies or specializing in branches of economic activity where most employment is in large production units (at least 250 workers).</p> <p>(*) Includes Turin (in 2001), Milan, Genoa, Venice, Bologna, Florence, Rome, Naples, Bari, Catania, Palermo and Cagliari.</p>					
<p>Source: Based on Istat's General Censuses of Industry and Services, 26 October 1981 and 22 October 2001.</p>					