

Chapter 2

Production Districts and Their Relevance in the Italian Economy: A Few Analytical Profiles

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Abstract This chapter analyzes the role of Italian Industrial Districts (IDs) at the national and international level and proposes a new updated map of the main Italian districts and their “Made in Italy” specializations. Italy is characterized by a very significant number of IDs that are of extraordinary relevance to the Italian economy in terms of direct and indirect employment and play a preeminent role in international trade both in large sectors (furniture, textiles-wearing apparel, footwear, etc.) as well as in many market niches (for example: buttons, scissors, wine making equipment, rubber seals, bicycle saddles and seats, etc.). An overview is provided of the following features: (1) key characteristics of the Italian productive system, i.e. the role of SMEs, the importance of Industrial Districts and the Italian industry’s main sectors of specialization; (2) main classification systems of Italian Industrial Districts, proposed by various sources, and the relevance of IDs in terms of employment; (3) the importance of Industrial Districts for Italian exports and their share of global trade; and finally, (4) the strengths and challenges of Italian districts at the beginning of the XXI century. Italian Industrial Districts undoubtedly remain a vital element for strengthening the competitiveness of the Italian manufacturing system.

This chapter is a partially modified version of a preceding work in Italian language: Fortis (2006). I would like to thank Cristina Crenna and Monica Carminati, researchers at the Fondazione Edison, who helped with the analysis and some of the statistics presented in the original version.

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2.1 Introduction

This chapter provides the framework for the role played by Italian Production Districts within the national and international economic systems with particular reference to Industrial Districts (IDs). It also provides a “map” of the primary specialized *Made in Italy* districts based on Istat (Italian National Institute of Statistics) census data from 2001.¹

The District phenomenon, which has already been studied in some depth (see Fortis 1996, 2000, 2004, 2005a, b; Quadrio Curzio and Fortis 2002; Accademia Nazionale dei Lincei-Fondazione Edison 2004), has taken on a role, in size and relevance, by far greater than in any other advanced nation, especially in the industrial and manufacturing sectors. Leaving aside the various classifications of IDs suggested by different scholars and institutions—derived from varying definitions of IDs, statistical sources and analytical methods—there is convergence in the literature on some objective data:

1. Italy is characterized by a very significant number of IDs;
2. in terms of direct and indirect employment (not just manufacturing, but for the tertiary sector in general), IDs are of extraordinary relevance to the Italian economy;
3. Italian IDs play an absolutely preeminent role in international trade both in large sectors (furniture, textiles-wearing apparel, footwear, etc.) as well as in many market niches (for example: buttons, scissors, wine making equipment, rubber seals, bicycle saddles and seats, etc.).

In the, often times confusing, debate over the past years regarding IDs in Italy, clearly pro or anti stances have often emerged. There are those who exalt the role of IDs and those, who instead, attribute faults which they truly do not deserve. It is our view that Italy can no longer face the economic and technological challenges of the future with the sole support of the traditional IDs as frequently happened in the past. However, it is just as erroneous to attribute to IDs, and the traditional Italian manufacturing specializations, the structural frailties of the Italian economic system, which in fact derive from various other reasons. For example, when the European Union economies were under considerable strain, which resulted in a decrease in national exports, some simplistically accused the IDs as being the root cause not only of the loss of Italian competitiveness, but also of the lack of more innovative and less exposed sectors to competition from emerging economies. However, it is clearly evident that the lack of specialization stems mainly from the decline of big industry and from inadequate industrial policies.

¹This “map” is the product of a prior classification of major Italian IDs elaborated by the author using 1996 Istat intermediate Census data and a methodology in part different from the one adopted throughout this work (Fortis 2004).

It is our intent to maintain as objective a position as possible on the subject of Italian IDs and focus mainly on the facts at hand. In particular, the following aspects will be considered in depth:

- links between IDs and specialized products
- main classifications of IDs by various sources
- employment relevance of IDs and their production dynamics
- role of IDs in domestic and world exports
- success factors and new challenges IDs are facing at the beginning of the XXI century (including unprecedented competition from China and its potential impact on Italian industries and many manufacturing sectors).

2.2 The Role of SMEs in “Traditional” Sectors and Industrial Districts in the Italian Manufacturing System

Small and medium-size enterprises (SMEs), IDs and the so-called “traditional” sectors, which we prefer to call “innovatively traditional”, due to their strong innovative content (as regards industrial processes and final products), represent three interconnected aspects which equally characterize the Italian manufacturing system (Fortis 2005a). There is no country that has a manufacturing sector which privileges SMEs the way Italy does, nor is there one which has such a broad base of IDs, even in sectors which, elsewhere, have over time been abandoned or downgraded (in favor of *high-tech* specializations such as electronics, telecommunications, aerospace, pharmaceuticals, fine chemicals, etc.). Italy has a significant share of sectors with a highly technological content, for instance: aerospace (the Finmeccanica group and the Varese ID which developed around the various industries belonging to the group). Other sectors cover from cruise ships (Fincantieri) to yachts and luxury sports cars, and from cosmetics to certain types of medical equipment. But, overall, the core of Italian production and manufacturing exports remains strongly embedded in the typical “Made in Italy” sectors.

2.2.1 The Central Role of SMEs

In Italy, according to the 2001 Istat Census, there are 542,876 manufacturing firms with less than 500 workers, which represents 99.9 % of the whole industry; furthermore, there are only 579 large manufacturing companies with more than 500

Table 2.1 Manufacturing firms in Italy: 2001 data

Persons employed by type of enterprise	Number of enterprises	% distribution	Number of persons employed	% distribution
Small enterprises (1–49)	530,487	97.7	2,733,491	55.8
Medium and medium-large enterprises (50–499)	11,810	2.2	1,361,308	27.8
<i>Total SMEs</i>	<i>542,297</i>	<i>99.9</i>	<i>4,094,799</i>	<i>83.7</i>
Large enterprises (>500)	579	0.1	799,997	16.3
Total enterprises	542,876	100.0	4,894,796	100.0

Source Compiled by Fondazione Edison using data from Istat (2006a)

workers (Table 2.1).² The data does not cover possible groupings of companies, which in any case would not substantially modify the overall structure of the manufacturing industry, which is characterized by a limited number of large companies whose average size is considerably less than large companies in other advanced nations.

There are 530,487 small manufacturing companies in Italy, which employ less than 50 workers, for a total of 2.7 million workers. There are 11,810 medium and large size firms (which employ between 50 and 499 workers), for a total of 1,361,000 workers.³ Manufacturing companies with less than 500 workers employ overall almost 4.1 million workers, or 84 % of those employed in the Italian manufacturing industry. Of these, only 800,000 are employed in large companies with more than 500 workers, which represents a little over 16 % of the entire industry.

Few large conglomerates exist in Italy. The exiguous number of conglomerates substantially differentiates the Italian manufacturing industry from other major countries.⁴ For a long time, this fact did not hinder economic growth in Italy given the vigorous performance of SMEs and their ability to operate particularly profitable market niches and sectors on a world scale. However, there has been increasing pressure on Italian companies to grow in size, so as to generate sufficiently large “critical mass” to promote and distribute their products more aggressively (by affirming and strengthening the position of renown brands) and to intensify R&D.

²To give a general idea of the reduced number of large manufacturing companies in Italy, let's set, only for this specific case, 500 workers as the limit differentiating large and medium-size companies. Other classifications, like the one used by the EU—which Istat and I use in different parts of this work—define SMEs as firms with less than 250 workers.

³Mediobanca-Unioncamere identified around 3900 core Italian medium-size firms (3893 to be exact) with a revenue of between €13 and €260 million, which employ from 50 to 499 workers and have on average a good operating profit margin. This core group of medium-size enterprises in 2002 employed over 569,000 workers and had a turnover of €132 billion (Mediobanca-Unioncamere 2005).

⁴This is not the place for a detailed analysis of why there are such few large Italian industrial groups, which, by the way, have never been particularly numerous. On the subject see Barca (1997).

2.2.2 “Made in Italy” Specializations

Another characteristic feature of the Italian manufacturing industry—which for a long time was considered a winning strategy, but today is no longer sufficient for facing the new globalization challenges—is its specialization in what are considered the traditional sectors (textiles-wearing apparel, leather products-footwear, wood-furniture, etc.) and light industry. Since the 80s, these specializations have been grouped under the term “Made in Italy” (Fortis 1985, 1998; Quadrio Curzio and Fortis 2000). Included in the term are the following sectors: (a) personal goods, i.e. textiles-wearing apparel, leather products-footwear, jewelry, eyewear; (b) household goods, i.e. wood-furniture, ceramic tiles and other ceramic products, ornamental stones, lamps and lighting equipment; (c) mechanical equipment (many for household uses like taps and fittings, household products, appliances, boilers, air conditioning systems, knobs, and tools) and specialized machinery for all of the manufacturing specializations listed above (textile machinery, machinery for the food industry, for packaging, for carpentry, for plastics, for tanning leather, etc.), and bicycles, motorcycles, luxury cars and boats. One must not forget the agro-food sector; many of its branches also deal with typical Italian products (see Chap. 6).

In another work (Fortis 2005a), a definition has been provided of the 4F’s of Italian excellence: Fashion and cosmetics; Food and wine; Furniture and ceramic tiles; Fabricated metal products, machinery and transport equipment (for greater detail see Sect. 3.4). As can be seen from Table 2.2, in 2001 almost 65 % of workers in manufacturing were employed in the typical “Made in Italy” sector. The “Made in Italy” manufacturing sectors from 1991 to 2001 were able to limit their losses to 136,000 workers. This means a drop of 163,000 jobs between 1991 and 1996 and a subsequent increase of around 26,000 jobs from 1996 to 2001. Other manufacturing sectors (vehicles, chemicals, electronics, cement, paper, tires, etc.) were hit much harder leading to a loss of 368,000 workers between 1991 and 2001.

From 1991 to 2001, the “Made in Italy” “Fashion and cosmetics” sector laid off around 224,000 workers, of which 107,000 between 1996 and 2001 due to reorganization, production relocation, or companies simply closing especially in fashion-wearing apparel, footwear, and to a lesser degree in the leather products sector. The eyewear, jewelry and tanning sectors resisted better although not without difficulties. The “Fashion and cosmetics” sector remains a pivotal joint of the Italian manufacturing industry with more than 891,000 workers employed in 2001: 610,000 in textiles-wearing apparel, 32,000 in tanning, 138,000 in shoe-making (including footwear parts), 36,000 in leather products, 50,000 in jewelry, and 19,000 in eyewear.

Also, from 1991 to 2001 the “Food and wine” sector lost around 20,000 jobs, but from 1996 to 2001 around 3700 were regained. In 2001 the manufacturing workers for the “Food and Wine” sector overall totaled 446,000: 58,000 were in the meat processing industry (including cured meats), 37,000 in the beverages industry,

Table 2.2 Persons employed in “Made in Italy” sectors and other manufacturing sectors

	1991	1996	2001	Δ 2001/1991	Δ 2001/1996
Fashion and cosmetics	1,135,464	998,655	891,210	-244,254	-107,445
Furniture and ceramic tiles (excluding domestic appliances)	513,361	491,295	494,644	-18,717	3349
Fabricated metal products, machinery and transport equipment (including domestic appliances)	1,189,142	1,208,329	1,334,913	145,771	126,584
Food and wine	466,146	443,134	446,785	-19,361	3651
Total “Made in Italy” sectors	3,304,113	3,141,413	3,167,552	-136,561	26,139
Other sectors	1,958,442	1,746,151	1,727,244	-231,198	-18,907
Total manufacturing	5,262,555	4,887,564	4,894,796	-367,759	7232
% share of “Made in Italy” sectors	62.8	64.3	64.7		
% share of other sectors	37.2	35.7	35.3		

Source Compiled by Fondazione Edison using data from Istat (2006a)

16,000 in oils, 54,000 in dairy products and 221,000 in other sectors such as pasta, sugar, confectionery products, etc. (Istat data).⁵

From 1991 to 2001 the “Furniture and ceramic tiles” sector (excluding mechanical products) lost around 19,000 jobs, yet remained substantially stable in the latter part of the period. The most important sector, the wood-furniture industry in 2001 employed 389,000 workers, if we consider the main subdivisions: 51,000 were employed in the production of ornamental stones, while 35,000 were in the tiles industry.

The negative employment trend in the “Fashion and cosmetics” sector, which occurred between 1991 and 2001, was compensated by the “Made in Italy” market niches, especially in “Fabricated metal products, machinery and transport equipment”. From 1991 to 2001, 146,000 jobs were created, 126,000 of which were created between 1996 and 2001. The most significant increases were in the following sectors: machinery and equipment for generic use, machine tools, taps and fittings, stamping of metal sheets, treatment and coating of metals, and sub-contracted machinery. Overall, the “Fabricated metal products, machinery and transport equipment” sector in 2001 employed more than 1.3 million workers.

⁵Federalimentare (the federation of the Italian food industry), in defining the system, uses a range of sectors different in part from the range used by Istat. See Fortis (2005a).

2.2.3 The Importance of Industrial Districts in the Italian Production System

Italy's bountiful "Industrial Districts" constitutes the third peculiar characteristic of its manufacturing system, which of course is interconnected with the previous two since IDs are primarily composed of SMEs. Thus, the best "Made in Italy" specializations are found in Industrial Districts comprised mostly of small and medium-size firms.

The number of Italian IDs can vary greatly. Depending on the sources and the definitions adopted, there can be from a little over 50 to a little less than 200. As will be shown, Istat has officially identified 156 IDs⁶; the Mediobanca-Unioncamere study on medium size firms has identified 72 IDs and 98 "Local production systems", 17 of which contain IDs (Mediobanca-Unioncamere 2005), while Italian Districts (ex-Districts Club) have classified around 150 IDs (Distretti Italiani 2005). A study by Giovanni Iuzzolino for Banca d'Italia (Bank of Italy) identified 156 IDs (Iuzzolino 2000). Lastly, the Fondazione Edison in this work presents a "map" of the main 473 "mono-product" district specializations (that differ from those that are part of broader districts which group together multiple Labor Market Areas).

2.3 Definitions, Classifications and "Maps" of Industrial Districts

What is an "Industrial District" exactly? As attention grew regarding this type of phenomenon and its links to specializations in the finished products and services industry, thanks to the works of Giacomo Becattini and Giorgio Fuà,⁷ varying definitions of "Districts" were coined, sometimes generating confusion with the use

⁶Istat has revised the territorial and municipality subdivision of the Italian Labor Market Areas (LMAs) with the data from its 2001 census. With respect to the classification used in the 1991 Census, which had identified 784 LMAs (199 of which were defined as "SME Manufacturing Districts"), the new classification has identified fewer LMAs, 686 in total, and fewer "SME Manufacturing Districts", 156 in total. The reason for the decrease is in part due to a series of "mergers" (Istat 2005a, b).

⁷For an overview of Becattini's line of thought, see the collection of essays by Becattini (2000). On the connections between Districts and "Made in Italy" niches, see Becattini (1998). On Italy's progressive specialisation in traditional sectors see Fuà (1980) and Fortis (1996). For a historical framework of the development of Italian Industrial Districts, see Brusco and Paba (1997). For a critical evaluation of the various research approaches to the phenomenon of Industrial Districts see Becattini (2002).

of terms such as: “clusters”, “local systems”, “Labor Market Areas in districts”, and “local production systems”.⁸

According to Becattini’s classical definition of “District”, it “is a social territorial-entity characterized by the presence, within a circumscribed area delineated by a common history and natural barriers, of a community of people and industrial enterprises. In a district, as opposed to other environments (for example a manufacturing town), both the community and firms tend to co-penetrate each other” (translated from Becattini 2000, pp. 58–59).

Becattini’s definition is perfectly applicable to Italian districts, which over the last four decades of the 20th century, developed in Italian provinces removed from large metropolitan areas. The definition underlines not only the economic profiles, but also the social value of IDs. For Becattini, IDs should be considered well-defined local communities, where the development of high quality manufacturing products reinforce the sense of identity of the local population and their roots to the land.

Industrial production at the district level finds its origin, in many cases, as an outgrowth of the local craftsman tradition, but not always. At times, districts developed due to the accumulation of capital in specific agricultural areas with abundant manual labor which found new outlets in the newly emerging manufacturing activities.

ID entrepreneurs are especially proud of their firm’s success as well as that of the territory in which they operate. Each firm is aware of contributing to the overall success of the ID: even the smallest firms and offshoots feel that they have contributed to some degree. Within the “Industrial District” there can be an entrepreneur who counts more than others, such a status within the industrial sector can become a broadly shared and sought-after objective, thus generating quite a strong motivational thrust for growth both at the individual and community level. Obviously, the local population’s entrepreneurial drive is fundamental for seeking affirmation within the industrial sector.⁹

Italian IDs are permeated with a distinctly Marshallian “industrial atmosphere”.¹⁰ They are composed primarily of SMEs, but often larger leader

⁸For other analytical profiles of districts, local systems and competition see also Becattini (1995–1996), Cainelli and Zoboli (2004), Cannari and Signorini (2000), Dei Ottati (1995–1996), Fortis (1999), Garonna and Gros-Pietro (2004), Murat and Paba (2006), Quadrio Curzio et al. (2002), Quadrio Curzio and Fortis (2003), Quintieri (2006).

⁹According to Becattini: “hidden nooks like Tolentino, or inaccessible places like Frosolone, or almost forgotten places like Lumezzane and Castel Goffredo, sometimes even closed communities far away from the influence of large cities, have given rise—against the logic of capital flows and even territorial morphology—to significant cases of grass roots industrialization. The Animal spirits of the local population have almost always been, I dare say, the decisive factor” (translated from Becattini 1998, p. 58).

¹⁰Becattini reminds us that Alfred Marshall was the first to hypothesize, at the turn of the 1870s, that among the more efficient modes of production there could be, besides the large vertically integrated companies, a concentration, within a given community, of many small factories specialized in the diverse phases of a single production process. Among the various studies that historically frame the Marshallian concept of the district see Becattini (2002) and Bellandi (1982).

companies emerge, as has happened, for example, in the eyewear industry of the Belluno district (Corò and Grandinetti 2001), and elsewhere. From these leader companies, new companies often emerge through a “pollinating” process whereby some workers leave the main company to start their own firm. In IDs, in fact, there are many highly specialized technicians and ex-factory workers who have become entrepreneurs. The local community accumulates in its “crafts” of excellence a know-how (or “contextual knowledge”) increasingly important which then comes to characterize the community itself.

Another peculiar aspect of IDs is the mix of competitiveness and cooperation among its various firms. Within the “District”, competition among companies is quite marked in favor of the strongest and most efficient. Nonetheless, these same companies, often collaborate on common projects and initiatives to promote “District” products abroad and form consortia to manage environmental, IT, electricity supply issues, etc.

Historically, Italian IDs represent the “spontaneous” response of a peripheral economic system, rich in potential, that was substantially snubbed by centralized, politically led industrial policies, which for decades favored the “protected” state industry, at the expense of privately owned large industries in the hands of the historically capitalist Italian families. Thus, SMEs within their districts have paved the way for autonomous development, choosing the path of modernizing the finished manufacturing and services industry and manufacturing market niches. They are used to working without “safety nets” or “aid”. Since the 60s, the international markets have been their main objective, while large national industries continued to operate essentially domestically, often in monopolistic or quasi-monopolistic conditions. Foreign markets are the fundamental arena in which IDs and SMEs have enhanced their competitiveness. They have experienced spectacular growth in the “Made in Italy” export sectors from the mid-60s to the present. IDs have quickly become world leaders in their relevant areas of specialization, and an extraordinary strength for the Italian economy. These facts were often underlined by Carlo Azeglio Ciampi during his tenure as President of the Italian Republic.

How many IDs actually exist in Italy is not an easy question to answer. Providing an exact figure, in fact, might not even be possible due to the numerous classifications which exist. As has already been noted, Istat, with its 2001 Census, classified 156 District-Labor Market Areas comprising small and medium-size enterprises. Mediobanca in 2002 identified 98 local production systems, i.e.: “homogenous production contexts with an elevated concentration of prevalently small firms and a specific management structure”. Again, with reference to 2002, Mediobanca classified 72 Districts, i.e. local production systems: “characterized by a high concentration of industrial firms and product specializations” (Mediobanca-Unioncamere 2005, p. XXXVIII). Iuzzolino (2000), “while being aware that a perfect classification does not exist”, tried to reduce the arbitrary elements often found in attempting to identify Districts by means of a particularly complex algorithm which “captured” 156 Districts on the basis of the intermediate Istat census data of 1996 (the fact that the numbers of Districts identified by Iuzzolino and the classified districts by Istat in 2001 are the same is purely coincidental).

Moreover, the debate concerning which method to use in identifying IDs is split in two camps, on one extreme are those who identify districts almost exclusively in terms of the direct know-how in the geographical area, on the juxtaposed extreme are those who accept only statistical studies with schemes or complex algorithms used to reduce as much as possible the arbitrary nature of the analysis. Most probably, a prudent scholar of Industrial Districts must find the right balance between the two.

However, when evaluating the “maps” of IDs, proposed by the many available sources, one must consider that in most cases they are not juxtaposed, but in fact, they complement each other. Each has many points in common since various IDs have been simultaneously identified by varying sources. It is thus important to clearly establish the underlying tenets of the various “maps” in order to avoid misunderstandings. For example:

1. is an ID composed prevalently of SMEs (Istat’s approach), or can a geographic area be considered an ID if it is characterized by the, non-exclusive, presence of large companies?
2. if, in a specific local area, there are two or more product specializations that are not strictly connected, should that area be considered a “multi-specialized” ID, or should it be counted as two or more distinct IDs?
3. when defining the size of employment in manufacturing of an ID, should only the workers of the main specialization be considered, or should a broader approach be taken whereby all workers in the manufacturing sectors in the area—district and non—are counted? etc.

Another important consideration in classifying IDs and evaluating their economic relevance is ensuring that the multiple definitions of “District”, in their varying degrees of complexity, coincide with the meagre available statistics. The statistical data on IDs, by their very nature should be territorial and very detailed at the local level. The level of detail required must go well beyond the number of firms or the number of workers, but they can rarely be found in the archives of the Chambers of Commerce or in Istat’s database. There have been, up to now, very few studies on IDs at the grass-root level in strict “physical” contact with local operators, based on the systematic collection and analysis of company financial statements in a circumscribed area of specialization. While these analyses are in fact long, costly and particularly complex, they provide the precious information on income, exports, added value, investments, company profitability (operating within the district), as well as other qualitative aspects which can be only inferred from interviews.¹¹

¹¹Examples of systematic analyses of company budgets in specific districts can be found in the studies undertaken by Fortis, Nodari, and Clerici of the Cusiano-Valsesiano and the Brescia Districts, both specialized in taps and fittings; see Fortis et al. (1999) and Fortis and Nodari (1999).

Istat has made considerable progress in significantly elaborating detailed statistics of geographical areas by subdividing Italy in Labor Market Areas (LMA) —i.e. geographic areas delineated by geographically contiguous municipalities, which are characterized by a significant concentration of daily movements of people from their home to their place of work (Sforzi 1997; Istat 2005a). In 1981, there were 955 officially recognized LMAs, in 1991 they had decreased to 784 and in 2001 they had dropped even further to 686. Using a very particular method called the “Sforzi-Istat algorithm”, 156 of the 686 “LMA-Industrial Districts” counted in 2001 were identified (Istat 2005b). For these, the Istat 2001 Census provides mounds of information on variables such as numbers of companies and local units, numbers of workers, etc.¹² Furthermore, a database is available with export data of LMAs-Industrial Districts using the 1991 Istat classification (784 LMAs of which 199 were IDs) based on 1996 foreign trade statistics (Istat 2002). Other non-Istat sources that have elaborated “maps” of Italian IDs are: the already mentioned Club of Districts (later renamed Italian Districts), “Il Sole-24Ore”, CNEL (Italian Economy and Employment Council)/CNR (Centre for National Research), the Fondazione Edison and Viesti (1999) (the latter refers to the Southern Italy in particular).

Furthermore, it must be noted that some Regions have, by decree, recognized “Districts” with the objective of defining the district areas which qualify for aid for specific development projects.¹³

Lastly, it should be underlined that important studies have been done on IDs. Besides the ones already mentioned the Bank of Italy (Signorini 2000) and Mediobanca-Unioncamere also undertook a study on Italian medium-sized “district” firms (Mediobanca-Unioncamere 2005).

The present work will consider two “maps” of IDs: Istat’s 156 “industrial districts of SMEs” and the Fondazione Edison “map”, elaborated by the author, of the main “Made in Italy” district specializations.

¹²It is not possible to assess in detail here the “Sforzi-Istat” scheme. As summarized by Istat, the approach used for identifying industrial districts includes the following phases: (1) identify the prevalently manufacturing LMAs. An LMA must represent a territorial concentration of employment in manufacturing above the national average and have an employment base in the services sector; (2) identify the prevalently manufacturing LMAs of small and medium-size enterprises (SMEs) that represent a territorial concentration of employment in the manufacturing sector above the national average and have local units employing up to 250 workers; (3) identify the main companies of the prevalently manufacturing LMAs and of the SMEs with an economic activity which represents a territorial concentration in a LMA above the national average and a larger occupational base; (4) identify the industrial districts, prevalently manufacturing LMAs and SMEs, where for the most part the bulk of total employment (overall groupings of SMEs compared to large firms) and relative employment (overall groupings of SMEs compared to a single medium-sized firm) of small and medium-size enterprises (Istat 2005b, p. 17).

¹³For a relatively complete review of the main “maps” of Italian Industrial Districts (with the exception of the most recent “map” proposed by the Fondazione Edison, which will be discussed later), see IPI (2002).

2.4 The 156 Labor Market Areas of Industrial Districts Identified by Istat on the Basis of Istat 2001 Census

Industrial Districts, to be considered as such, according to Istat, must comply with specific criteria which correspond to the means by which they are identified as Labor Market Areas (LMAs) and have a prevalently manufacturing base. Each of the 686 LMAs identified in 2001, are therefore, analyzed using data on the work force, the local firms or production units, and the economic activity using data from the Istat 2001, 8th General Census of Industry and Services.

Istat data exclusively consider IDs comprised of SMEs. The definition used of SMEs complies with the 2003/361/EC “Commission Recommendation of 6 May 2003, concerning the definition of micro, small and medium-sized enterprises”, later embodied by the Italian Ministerial Decree on Production Activities of 18 April 2005. Istat data refer to production units with less than 250 workers. More to the fact, small enterprises must have between 1 and 49 workers and medium-sized enterprises must have between 50 and 249 workers.

The list of Industrial Districts (and their municipalities), along with the data describing their main economic characteristics, is found in the 2001 Istat database of the 8th general census on Industry and Services, accessible from Istat’s website (www.istat.it) and from the webpage dedicated to censuses (<http://censimenti.istat.it>).

2.4.1 *Condensed Istat Statistics on the Role of Industrial Districts in the Italian Economy*

Table 2.3 provides a summary of Istat’s most relevant data on LMA-IDs in the Italian economy. As already stated, as of 2001 there are 156 Industrial Districts (out of the total 686 LMAs in which Italy is subdivided). People living in IDs represent 22.1 % of the entire Italian population. Municipal Districts represent 27.3 % of all Italian municipalities (i.e. 2215 of the 8101 municipalities) which corresponds to

Table 2.3 Summary data of the 156 manufacturing industrial districts of small and medium-size enterprises identified by Istat: 2001 data

Indicators	156 districts	Total Italy	% share in total Italy
Local units in all sectors	1,180,042	4,755,636	24.8
Persons employed in local units in all sectors	4,929,721	19,410,556	25.4
Manufacturing local units	212,410	590,773	36.0
Person employed in manufacturing	1,928,602	4,906,315	39.3
Number of municipalities	2215	8101	27.3
Geographic area (in km ²)	62,113.83	301,328.45	20.6
Inhabitants	12,591,475	56,995,744	22.1

Source Compiled by Fondazione Edison using data from Istat (2006a)

20.6 % of the entire territory (62,113.83 km² out of 301,328.45 km²), with a population density of 209 per km².

In 2001, 4,929,721 people worked in industrial Districts or 25.4 % of the whole Italian working population in production sectors; 1,180,042, or 24.8 % were employed in local units. More specifically, in 2001 there were 1,928,602 workers or 39.3 % of the total employed in manufacturing industries, working in the 156 manufacturing IDs. Istat notes that “the main industries of the Industrial Districts are those with typical “Made in Italy” products: textiles-wearing apparel; machinery; household products; leather products and footwear; food; jewelry and musical instruments. There are 148 IDs specialized in typical made in Italy products (94.8 % of all districts); there are four in the paper and the paper packaging sector, and four in the production of rubber and plastics. The made in Italy Industrial Districts specialize mainly in: textiles-wearing apparel (28.8 % of total), machinery (24.4 %), household products (20.5 %), and leather products and footwear (12.8 %)” (Istat 2005b, p. 5).

From re-elaborations of the 2002 data of the older 199 LMA-IDs identified using the 1991 Census scheme (Istat 2005c), it seems that the overall added value generated by Industrial Districts was 27 %. When considering the whole manufacturing industry’s added value (including the construction sector), it increased to 38 % (see Table 2.4).

Table 2.4 Contribution of manufacturing districts comprised of small and medium size enterprises, identified by Istat, to the Italian economy: summary table

Aspects of the Italian economy	% contribution of districts
GDP^a	
Total added value (of)	27.2
–Industry (including construction)	37.7
–Services	23.0
Manufacturing industry^b	
Employment	39.3
Manufacturing exports^c	
Total exports	46.1
–Textiles and wearing apparel	67.0
–Leather and leather products (including footwear)	66.9
–Wood and wood products (excluding furniture)	55.8
–Non-metallic mineral products	60.4
–Basic metals and fabricated metal products	51.0
–Machinery and equipment	51.6
–Other manufacturing (including furniture)	67.2

^aEstimates of Istat data for year 2002 following the classification scheme of districts according to the 1991 Istat Census

^bEstimates of Istat data for 2001 following the classification scheme of districts according to the 2001 Istat Census

^cEstimates relating to foreign trade data in 1996 following the classification scheme of districts according to the 1991 Istat Census

Source Compiled by Marco Fortis using data from Istat (2002, 2006a, b, c)

Next to this extremely important data, highlighting the importance of the generated added value and of employment in manufacturing, is LMA-District export data. Istat published an interesting report, even though it unfortunately considers the old 199 districts (identified through the 1991 Census scheme) and refers to 1996. Nonetheless, the overall picture provided regarding the contribution of Districts to Italian exports, can still be considered quite realistic of the current situation. In 1996 (see Table 2.4), according to Istat, the contribution of the “old” 199 local small and medium-size manufacturing firms to exports of processed and manufactured products was 46.1 % (Istat 2002). Note that the contribution of Districts is even higher for the specialized “Made in Italy” sectors. According to Istat, Districts are responsible for 67 % of all Italian exports in textiles-wearing apparel, 66.9 % of exports in leather-footwear, 60.4 % of all exports in the processing of non-metallic mineral products (including ceramic tiles and ornamental stones), 51.6 % of all exports in machinery and equipment, and 67.2 % of all exports in “other manufacturing sectors” (including jewelry and furniture) (Istat 2002).

2.4.2 Limits to the Istat Classification

The figures above are without a doubt significant and give a very clear idea of the fundamental role played by Industrial Districts in the Italian economy. However, it must be noted, that while the author considers the “map” of Industrial Districts elaborated by Istat as the most important and consolidated reference available today in Italy for the study of IDs, it does not portray an exact and complete profile of Italian Districts. In fact, certain “filters” used by Istat to select which of the 686 LMAs can be defined as “Industrial Districts” have led to the bewildering exclusion of certain “historical” IDs. How could this have come about? First of all, let’s consider Istat’s selection criteria. The first necessary condition an LMA must fulfill as a candidate for “becoming” an Industrial District is that it must be a “manufacturing” LMA. Thus, the percentage of workers in the local manufacturing industry must be greater than the national average and greater than the basic employment level in services. This filter has led to immediately excluding, at the preliminary selection process, certain LMAs which nonetheless have a prevalent concentration of employment in services, and have within their territorial area important manufacturing districts. A second “filter” is that the LMA must be a “manufacturing LMA comprised of small and medium-size enterprises”. This definition implies that a LMA must have a percentage of employment in manufacturing allocated to local small and medium sized units (i.e. below 250 workers) above the national average.

The application of these two preliminary selection filters, which do have a certain logic, “eliminated” from the Italian District landscape in 2001 various IDs of considerable economic and social relevance. For example, in 2001 Istat no longer considered the tiles manufacturing hub of Sassuolo a District. The same happened to: the LMAs of Verona, Carrara and Pietrasanta (even though they are world leaders in the processing of ornamental stones), the LMA of Castel Goffredo (world leader in

hosiery), and the LMA of Florence (world leader in leather products). The ID of Friuli, known for quality chair making, has also been dropped off the “map” of IDs, and has been englobed by the Gorizia LMA, which is also not considered an “Industrial District”. The same happened to Parma (food industry), to the footwear hub of Riviera del Brenta (split between the LMAs of Padua and Venice), etc. Furthermore, Istat has identified certain minor LMA-Districts, which do not seem to possess any of the qualities of real IDs (for example Santo Stefano Belbo, Cortemilia, Villa Minozzo, etc.) and at best could be considered small segments of more important industrial hubs.

Istat recognizes that a cause for the reduction of the number of Industrial Districts from 199 to 156 over the 1991–2001 period: “must be found in the territorial and production reorganization and in the labor markets of some LMAs, which in 1991 were classified as industrial districts. The reorganization was accompanied by growth in production units—i.e. Sassuolo (Emilia-Romagna), Castel Goffredo (Lombardy) and Treviso (Veneto)—which has led to districts being classified as LMAs of large companies, or to sectoral shifts of the production process toward business services, for example Padua (Veneto) and Udine (Friuli Venezia Giulia)” (Istat 2005b, p.10).

This undoubtedly reveals a rigorous coherence in the application of the original classification method adopted by Istat, even though such an approach in the long run can create difficulties in gaining a clear picture of Italian Industrial Districts, the dynamics of their evolution and an understanding of their current challenges. It is obvious that neither Sassuolo, nor Castel Goffredo, nor Manzano, nor other similar production hubs, can “disappear”, by the mere stroke of a pen, from a realistic map describing Italian Industrial Districts.

2.4.3 *The Sforzi-Istat Scheme: Still a Fundamental Tool*

Even with its contradictions, it is believed that the Sforzi-Istat scheme is an important and valid tool for analyzing Italian Industrial Districts. It allows scholars to access large mounds of figures and information regarding the local economy. There are in particular three interpretations which, can be obtained from a careful analysis of the statistics provided by Istat on Industrial Districts: (a) IDs are prevalently concentrated in Central and Northern Italy, even though there are important IDs in Southern Italy; (b) employment was relatively more stable in IDs than in non-district areas during the 1991–2001 period; and lastly, (c) there are significant production specializations in the typical “Made in Italy” sectors with a series of “relevant”¹⁴ employment concentrations in those sectors.

¹⁴A minimum of 1500 workers is considered a “relevant” employment concentration in a LMA District in a specific sector. This figure is quite significant if one considers, as has already been noted, that in Italy, there are only 579 manufacturing companies with more than 500 workers. There are many Istat Districts with more than 1500 workers in one or more of the typical “Made in Italy” sectors.

An overview of the 156 Industrial Districts identified in 2001 can be found in Table 2.5. Istat underlines the fact that: “industrial districts are concentrated in 17 Regions (with the exception of Aosta Valley, Liguria and Calabria). The Italian Regions with the most districts are Lombardy and Marche, each have 27 industrial districts (17.3 % of all Italian Industrial Districts), followed by Veneto with 22 (14.1 %), Tuscany with 15 (9.6 %) and Emilia-Romagna with 13 (8.3 %). The Regions where the Industrial District model is the least present are Lazio, Molise and Sicily (with 2 districts each), Basilicata and Sardinia (with only 1 district each)” (Istat 2005b, p. 4).

Regarding employment dynamics in manufacturing, it is useful to compare what they were in the 156 Istat IDs in 1991 and in 2001 (see Table 2.6). Employment in the manufacturing sector in Italian industrial districts, remained almost constant during that period, with a slight contraction of -0.7% , while in the rest of the Italian manufacturing sector dropped by -9.3% , decreasing from 3.3 million in 1991 to about 3 million in 2001. Thus, when considering equal ranges of territory, employment in the Industrial Districts, as identified by Istat in 2001, increased from 37.2 to 39.4 %. In conclusion, Industrial Districts in 1991 and 2001 represented an important factor of development as well as of social and occupational stability, while non district manufacturing areas witnessed a net decrease in jobs. Furthermore, as has been clearly shown by IPI (Institute for Promotion of Industry), employment in the manufacturing firms of the 156 Istat IDs, in those years, not only did better than in the rest of the country, but showed a slight increase in the number of persons employed in retail ($+0.1\%$) and in other services ($+41.4\%$) as opposed to the remaining 530 non-district LMAs (-5.9 and $+31.2\%$ respectively) (IPI 2006).

These figures and other analyses of employment dynamics in IDs (Signorini and Omiccioli 2005; Signorini 2006) demonstrate the superficial approach taken by some who assumed that the Italian industrial district model is in decline. If that were the case, what conclusions should be drawn regarding the rest of the domestic industry, where employment literally plummeted? Undoubtedly, some IDs, especially in the textiles-wearing apparel, eyewear and footwear sectors registered significant decreases in employment between 1991 and 2001, and especially from 2001 to 2004, due to decreasing profitability margins, closures and relocations abroad. The most significant declines in employment in the manufacturing sector where in the districts of Busto Arsizio, Monte San Pietrangeli, Pieve di Cadore, Castelfiorentino, Empoli, Borgosesia, Como, Biella and Barletta. Notwithstanding the appreciable signs of an upturn, which appeared at the end of 2005, many of these IDs faced extremely harsh prospects especially due to a strong euro against the US dollar and the Chinese yuan and asymmetrical and disloyal competition from China. These factors considerably penalized exports. However, there are also dozens of IDs, which had less difficulty over the past years, especially in the following sectors: household goods, food, and light industry, which compensated, at least in part, the loss of market shares in other sectors.

Table 2.5 The 156 manufacturing industrial districts of small and medium enterprises identified by Istat: 2001 data

Labor Market Areas-district code	Name of district	Specialization	Region	Residential population	Local manufacturing units	Persons employed in local manufacturing units
5	Rivarolo Canavese	Machinery	Piedmont	71,938	975	11,004
8	Borgosesia	Textiles and wearing apparel	Piedmont	68,905	1041	12,183
12	Borgomanero	Machinery	Piedmont	95,445	1837	18,396
17	Cortemilia	Food	Piedmont	9098	123	697
19	Dogliani	Furniture	Piedmont	13,507	212	1813
22	Saluzzo	Food	Piedmont	67,429	1000	6955
23	Santo Stefano Belbo	Food	Piedmont	6414	89	573
26	Canelli	Machinery	Piedmont	36,208	520	4157
28	Alessandria	Jewelry and musical instruments	Piedmont	144,717	2515	20,159
31	Ovada	Machinery	Piedmont	32,021	352	2571
33	Biella	Textiles and wearing apparel	Piedmont	171,969	2643	30,960
36	Omegna	Machinery	Piedmont	41,206	940	6858
41	Busto Arsizio	Textiles and wearing apparel	Lombardy	565,262	9788	89,967
46	Como	Textiles and wearing apparel	Lombardy	408,746	6312	61,232
53	Morbegno	Food	Lombardy	51,147	637	7033
58	Seregno	Furniture	Lombardy	504,250	10,134	75,401

(continued)

Table 2.5 (continued)

Labor Market Areas-district code	Name of district	Specialization	Region	Residential population	Local manufacturing units	Persons employed in local manufacturing units
60	Bergamo	Machinery	Lombardy	705,872	9351	112,152
61	Clusone	Textiles and wearing apparel	Lombardy	37,684	510	4667
64	Vilminore di Scalve	Machinery	Lombardy	4482	82	486
65	Zogno	Machinery	Lombardy	38,197	383	5844
66	Brescia	Machinery	Lombardy	407,887	6247	63,002
67	Calvisano	Textiles and wearing apparel	Lombardy	35,607	654	6413
68	Chiari	Rubber and plastics	Lombardy	233,572	4143	42,773
69	Darfo Boario Terme	Textiles and wearing apparel	Lombardy	58,790	770	6352
72	Lumezzane	Machinery	Lombardy	73,647	2023	19,184
73	Manerbio	Textiles and wearing apparel	Lombardy	88,579	1470	16,841
74	Orzinuovi	Textiles and wearing apparel	Lombardy	51,407	657	5827
75	Salò	Machinery	Lombardy	73,175	1163	9876
77	Vestone	Machinery	Lombardy	22,310	632	6386
79	Robbio	Rubber and plastics	Lombardy	12,378	160	1943

(continued)

Table 2.5 (continued)

Labor Market Areas-district code	Name of district	Specialization	Region	Residential population	Local manufacturing units	Persons employed in local manufacturing units
80	Sannazzaro de' Burgondi	Jewelry and musical instruments	Lombardy	34,809	465	3853
83	Vigevano	Machinery	Lombardy	230,912	3331	33,875
85	Castelleone	Machinery	Lombardy	31,475	472	4118
86	Crema	Machinery	Lombardy	124,995	1485	14,209
90	Castiglione delle Stiviere	Textiles and wearing apparel	Lombardy	136,452	2041	21,122
92	Poggio Rusco	Textiles and wearing apparel	Lombardy	49,794	806	6233
94	Viadana	Furniture	Lombardy	64,839	976	10,603
95	Lecco	Machinery	Lombardy	269,308	4421	51,119
96	Premana	Machinery	Lombardy	14,930	390	2583
115	Ala	Food	Trentino-Alto Adige	12,567	138	1701
118	Borgo Valsugana	Furniture	Trentino-Alto Adige	25,583	197	2780
128	Rovereto	Machinery	Trentino-Alto Adige	70,667	725	8246
129	Storo	Machinery	Trentino-Alto Adige	11,306	197	1737
132	Bovolone	Furniture	Veneto	62,712	1497	10,936
133	Grezzana	Furniture	Veneto	18,962	308	2422

(continued)

Table 2.5 (continued)

Labor Market Areas-district code	Name of district	Specialization	Region	Residential population	Local manufacturing units	Persons employed in local manufacturing units
134	Legnago	Furniture	Veneto	73,774	1820	12,041
136	San Bonifacio	Machinery	Veneto	117,918	1671	21,529
137	San Giovanni Ilarione	Leather and footwear	Veneto	15,083	212	2334
139	Arzignano	Leather and footwear	Veneto	115,743	2506	32,305
141	Bassano del Grappa	Furniture	Veneto	174,859	3749	36,088
142	Schio	Machinery	Veneto	78,245	1607	18,835
143	Thiene	Textiles and wearing apparel	Veneto	104,094	2107	22,567
144	Vicenza	Jewelry and musical instruments	Veneto	278,791	4938	50,735
146	Auronzo di Cadore	Machinery	Veneto	13,143	281	1467
149	Feltre	Machinery	Veneto	58,783	697	8241
150	Pieve di Cadore	Machinery	Veneto	16,008	498	3670
151	Castelfranco Veneto	Textiles and wearing apparel	Veneto	207,618	3904	40,321
152	Conegliano	Furniture	Veneto	176,344	2923	34,540
153	Montebelluna	Leather and footwear	Veneto	119,395	2430	25,698
154	Pieve di Soligo	Furniture	Veneto	41,816	821	9683

(continued)

Table 2.5 (continued)

Labor Market Areas-district code	Name of district	Specialization	Region	Residential population	Local manufacturing units	Persons employed in local manufacturing units
156	Portogruaro	Furniture	Veneto	115,074	1436	17,053
159	Este	Textiles and wearing apparel	Veneto	117,712	1623	13,945
160	Montagnana	Furniture	Veneto	64,788	1444	10,356
162	Adria	Textiles and wearing apparel	Veneto	42,859	530	4049
163	Badia Polesine	Textiles and wearing apparel	Veneto	51,005	782	6290
166	Ampezzo	Machinery	Friuli Venezia Giulia	4731	69	689
175	Maniago	Machinery	Friuli Venezia Giulia	51,774	672	7284
176	Pordenone	Furniture	Friuli Venezia Giulia	227,733	3104	42,803
194	Fiorenzuola d'Arda	Machinery	Emilia-Romagna	53,319	686	5750
199	Langhirano	Food	Emilia-Romagna	22,986	575	3427
202	Guastalla	Machinery	Emilia-Romagna	59,228	1186	12,720
203	Reggio nell'Emilia	Machinery	Emilia-Romagna	285,919	4825	45,399
204	Villa Minozzo	Furniture	Emilia-Romagna	8618	94	677
205	Carpi	Textiles and wearing apparel	Emilia-Romagna	117,471	3587	29,102
207	Mirandola	Machinery	Emilia-Romagna	94,636	1917	19,089

(continued)

Table 2.5 (continued)

Labor Market Areas-district code	Name of district	Specialization	Region	Residential population	Local manufacturing units	Persons employed in local manufacturing units
208	Modena	Machinery	Emilia-Romagna	304,875	4711	44,133
216	Argenta	Machinery	Emilia-Romagna	47,282	527	4235
222	Faenza	Furniture	Emilia-Romagna	81,749	1028	9263
223	Lugo	Food	Emilia-Romagna	95,072	1219	12,918
228	Forlì	Furniture	Emilia-Romagna	141,328	2026	17,254
230	Rocca San Casciano	Machinery	Emilia-Romagna	4562	75	534
240	Lucca	Paper	Tuscany	150,640	2290	20,661
244	Pistoia	Textiles and wearing apparel	Tuscany	120,024	2521	13,304
246	Borgo San Lorenzo	Leather and footwear	Tuscany	49,182	694	5090
247	Castelfiorentino	Leather and footwear	Tuscany	40,830	822	6139
248	Empoli	Textiles and wearing apparel	Tuscany	95,941	2226	14,613
261	Santa Croce sull'Arno	Leather and footwear	Tuscany	91,908	2641	20,467
263	Arezzo	Jewelry and musical instruments	Tuscany	127,225	2905	20,458
264	Bibbiena	Furniture	Tuscany	29,318	546	4638
265	Cortona	Jewelry and musical instruments	Tuscany	38,334	533	3336

(continued)

Table 2.5 (continued)

Labor Market Areas-district code	Name of district	Specialization	Region	Residential population	Local manufacturing units	Persons employed in local manufacturing units
267	Pieve Santo Stefano	Textiles and wearing apparel	Tuscany	6157	82	614
269	Sansepolcro	Textiles and wearing apparel	Tuscany	23,433	341	2562
273	Piancastagnaio	Leather and footwear	Tuscany	12,247	266	1630
274	Poggibonsi	Furniture	Tuscany	64,508	1183	10,476
277	Sinalunga	Furniture	Tuscany	34,965	716	5093
286	Prato	Textiles and wearing apparel	Tuscany	252,657	9380	50,444
287	Assisi	Textiles and wearing apparel	Umbria	51,440	846	7153
290	Città di Castello	Paper	Umbria	52,639	1141	8625
295	Marsciano	Furniture	Umbria	24,920	307	2452
299	Todi	Machinery	Umbria	20,245	250	1708
300	Umbertide	Textiles and wearing apparel	Umbria	19,151	330	2967
304	Cagli	Textiles and wearing apparel	Marche	19,959	330	1845
305	Fano	Furniture	Marche	107,494	1646	13,079
306	Novafeltria	Machinery	Marche	17,357	237	1790
307	Pergola	Machinery	Marche	22,481	395	3120
308	Pesaro	Furniture	Marche	117,109	2209	20,433

(continued)

Table 2.5 (continued)

Labor Market Areas-district code	Name of district	Specialization	Region	Residential population	Local manufacturing units	Persons employed in local manufacturing units
309	Piandimeleto	Furniture	Marche	5714	126	1269
310	San' Angelo in Vado	Textiles and wearing apparel	Marche	5977	100	830
311	Sassorovaro	Furniture	Marche	15,401	294	1583
312	Urbino	Furniture	Marche	35,058	606	5738
314	Arcevia	Leather and footwear	Marche	12,395	231	2319
316	Filottrano	Textiles and wearing apparel	Marche	13,192	210	2711
317	Jesi	Machinery	Marche	74,938	919	10,853
318	Senigallia	Textiles and wearing apparel	Marche	62,389	832	6458
320	Civitanova Marche	Leather and footwear	Marche	90,807	2686	19,898
322	Mogliano	Textiles and wearing apparel	Marche	7588	260	1308
324	Recanati	Jewelry and musical instruments	Marche	85,240	1654	18,409
325	San Severino Marche	Paper	Marche	28,134	336	2524
326	Sarnano	Leather and footwear	Marche	14,135	259	1270
327	Tolentino	Leather and footwear	Marche	24,051	442	4042

(continued)

Table 2.5 (continued)

Labor Market Areas-district code	Name of district	Specialization	Region	Residential population	Local manufacturing units	Persons employed in local manufacturing units
328	Treia	Furniture	Marche	13,353	279	2411
329	Ascoli Piceno	Textiles and wearing apparel	Marche	109,858	1264	12,432
331	Fermo	Leather and footwear	Marche	73,682	1414	9999
332	Montegiorgio	Leather and footwear	Marche	24,554	672	4781
333	Montegranaro	Leather and footwear	Marche	20,184	864	6417
334	Monte San Pietrangeli	Leather and footwear	Marche	5640	189	1383
335	Offida	Leather and footwear	Marche	13,286	201	1591
336	San Benedetto del Tronto	Leather and footwear	Marche	109,431	1640	13,031
338	Civita Castellana	Furniture	Lazio	59,454	540	5717
361	Sora	Paper	Lazio	66,543	575	4186
370	Giulianova	Textiles and wearing apparel	Abruzzo	98,904	1505	13,707
371	Montorio al Vomano	Furniture	Abruzzo	11,798	104	833
372	Pineto	Furniture	Abruzzo	38,833	407	3544
373	Teramo	Textiles and wearing apparel	Abruzzo	77,907	777	7687

(continued)

Table 2.5 (continued)

Labor Market Areas-district code	Name of district	Specialization	Region	Residential population	Local manufacturing units	Persons employed in local manufacturing units
378	Guardiagrele	Leather and footwear	Abruzzo	20,674	334	2082
379	Ortona	Textiles and wearing apparel	Abruzzo	41,431	444	3630
382	Montenero di Bisaccia	Textiles and wearing apparel	Molise	9846	115	977
386	Trivento	Textiles and wearing apparel	Molise	11,760	114	554
395	Apice	Textiles and wearing apparel	Campania	6357	47	238
402	San Marco dei Cavoti	Textiles and wearing apparel	Campania	8995	110	715
403	Sant'Agata de' Goti	Textiles and wearing apparel	Campania	27,026	271	1724
420	Paternopoli	Machinery	Campania	8940	67	471
422	Solofra	Leather and footwear	Campania	42,247	785	6005
426	Buccino	Rubber and plastics	Campania	22,788	177	1242
456	Altamura	Furniture	Apulia	107,838	1257	9727
458	Barletta	Leather and footwear	Apulia	331,300	4153	20,199
460	Corato	Textiles and wearing apparel	Apulia	70,712	792	4300

(continued)

Table 2.5 (continued)

Labor Market Areas-district code	Name of district	Specialization	Region	Residential population	Local manufacturing units	Persons employed in local manufacturing units
469	Ceglie Messapica	Textiles and wearing apparel	Apulia	30,005	194	1220
474	Alessano	Textiles and wearing apparel	Apulia	28,043	332	2079
484	Presicce	Textiles and wearing apparel	Apulia	18,431	214	896
485	Taviano	Textiles and wearing apparel	Apulia	47,153	775	3055
487	Veglie	Textiles and wearing apparel	Apulia	29,078	271	1081
503	Pisticci	Rubber and plastics	Basilicata	43,032	299	2627
567	Custonaci	Furniture	Sicily	8612	134	734
599	Sinagra	Textiles and wearing apparel	Sicily	5800	46	260
647	Calangianus	Furniture	Sardinia	7302	164	892
Total 156 districts				12,591,475	212,410	1,928,602

Source Compiled by Fondazione Edison using data from Istat (2006a)

Table 2.6 Persons employed in manufacturing firms in the 156 industrial districts identified by Istat and in the rest of Italy in 1991 and 2001

	1991	2001	% change 2001/1991
Total employed in the 156 districts	1,941,475	1,928,055	−0.7
Total employed in the rest of the manufacturing industry ^a	3,270,750	2,967,803	−9.3
Total employed in the manufacturing industry ^b	5,212,225	4,895,858	−6.1
% share of total districts	37.2	39.4	

^aRemaning 530 Labor Market Areas not considered a “district” by Istat

^bTotal of the 686 Labor Market Areas

Source Fondazione Edison compiled using data from Istat (2006a)

Another aspect of Istat Industrial Districts, which merits further attention, is the considerable link with “Made in Italy” sectors of excellence; or the so-called 4Fs mentioned above, with the addition of paper products, rubber (excluding tires) and plastics. Many Istat IDs in these sectors have significant concentrations of employment. If one considers the 2001 data re-elaborated by the Fondazione Edison, in 268 cases one can identify, within the 156 Istat IDs, specific manufacturing specializations with more than 1500 workers employed in a single “Made in Italy” sector (or in even more than one simultaneously), for a total of 1,265,000 workers. This represents almost two thirds of overall employment in manufacturing IDs. As can be seen from Table 2.7, there are 56 cases of Istat IDs with more than 1500 workers, each in the metal or metal products sector (for a total of 301,000 workers). In textiles and wearing apparel, there are 49 Istat IDs which each have more than 1500 workers (with a total of 298,000 workers); in machinery and equipment there are 42 (with 216,000 workers); in the other manufacturing industries (including furniture and jewelry) there are 29 (with 143,000 workers); and so forth.

A classification of the most important “Made in Italy” District specializations has been made, by analyzing the sectoral employment of Istat IDs, measured in terms of people employed and the number of local companies. Coefficients of Specialization (CSp)¹⁵ have been calculated for each Istat ID by sector, measured as the relation between the percentage of sectoral employment for each district compared to their own total employees in manufacturing, and the percentage of total employed at the national level in the analyzed sector compared to overall employment in the manufacturing industry in Italy. The more CSps are greater than 1, the more an ID can be considered “specialized”.

¹⁵The territorial Coefficient of Specialization (CSp) is given by the ratio $(SP_iLMA_j/MANLMA_j)/(SP_iITA/MANITA)$, where SP_iLMA_j is the number of employed in the i th sector of specialization of the j th LMA; $MANLMA_j$ is the overall employment in manufacturing of j th LMA; SP_iITA is the total number employed at the national level in the i th specialized sector; $MANITA$ is the overall number of employed in the manufacturing industry at the national level.

Table 2.7 Major Italian district specializations including “Made in Italy” specializations with over 1500 persons employed: Istat 2001 data

Sectors	Number of Istat districts with over 1500 persons employed in local units in the “Made in Italy” sector of specialization	Persons employed in the major districts of each sector	Istat districts with the highest number of persons employed in the sector of specialization	Istat districts with the highest levels of sectoral specialization coefficients (Italy’s average = 1)
Food, beverage and tobacco	25	63,428	Modena (5819); Reggio nell’Emilia (5307); Bergamo (5015)	Langhirano (7.7); Lugo (2.9); Saluzzo (2.4)
Textiles and wearing apparel ^a	49	298,013	Prato (41,449); Busto Arsizio (29,113); Biella (22,742)	Prato (6.6); Filottrano (6.4); Biella (5.9)
Leather, leather products (footwear) ^b	17	93,501	Santa Croce sull’Arno (16,203); Civitanova Marche (15,822); Arzignano (11,333)	Montegrano (21.7); Civitanova Marche (18.9); Santa Croce sull’Arno (18.8)
Wood and wood products	8	21,136	Pordenone (3625); Seregno (3452); Portogruaro (3033)	Portogruaro (4.9); Viadana (4.7); Pesaro (2.6)
Paper, paper products, publishing and printing	13	37,019	Bergamo (6705); Lucca (4388); Como (3328)	Lucca (4.0); Città di Castello (4.0)
Rubber and plastics	15	57,015	Chiari (7934); Bergamo (6617); Busto Arsizio (6318)	Chiari (4.2); Alessandria (3.2); Recanati (2.8)
Non-metallic mineral products (ceramic products, tiles, ornamental stones, glass) ^c	14	34,607	Bergamo (5133); Civita Castellana (4008); Reggio nell’Emilia (3571)	Civita Castellana (13.5); Empoli (2.8); Pesaro (1.6)
Metals and metal products	56	301,340	Bergamo (25,555); Brescia (21,584); Lecco (20,480)	Vestone (4.4); Lumezzane (3.6); Premiana (3.4)

(continued)

Table 2.7 (continued)

Sectors	Number of Istat districts with over 1500 persons employed in local units in the “Made in Italy” sector of specialization	Persons employed in the major districts of each sector	Istat districts with the highest number of persons employed in the sector of specialization	Istat districts with the highest levels of sectoral specialization coefficients (Italy’s average = 1)
Machinery and equipment	42	215,871	Bergamo (17,208); Busto Arsizio (15,118); Modena (12,940)	Borgomanero (3.4); Guastalla (2.9); Modena (2.4)
Other manufacturing (jewelry and furniture) ^d	29	143,383	Seregno (19,407); Arezzo (11,272); Pordenone (10,890)	Arezzo (8.6); Altamura (8.2); Pieve di Soligo (6.8)
Total	268	1,265,313		

^aTreviso does not appear under textiles and wearing apparel as the LMA is not considered a “district” by Istat (see Table 2.8)

^bFlorence does not appear under leather products as the LMA is not considered a “district” by Istat (see Table 2.8)

^cSassuolo does not appear under tiles and Verona, Pietrasanta and Carrara do not appear under ornamental stones as the LMAs are not considered “districts” by Istat (see Table 2.8)

^dGorizia does not appear under chairs and Matera, Gioia del Colle and Bari do not appear under seats since the LMAs are not considered “districts” by Istat (see Table 2.8)

Source Compiled by Marco Fortis using data from Istat (2006a)

Table 2.7 provides an overview of Istat IDs with the largest number of workers and with the highest CSps in the various “Made in Italy” sectors. Examples of significant employment can be found in the LMAs of Modena and Reggio Emilia in the food sector; Prato, Busto Arsizio and Biella in textiles-wearing apparel; Santa Croce sull’Arno, Civitanova Marche and Arzignano in leather products-footwear, Chiari in rubber and plastics; Bergamo, Brescia, Lecco, Busto Arsizio and Modena in metalworking and mechanical engineering; Seregno, Arezzo and Pordenone in other manufacturing products (furniture and jewelry). Examples of significant added value of CSps in the various sectors are: Langhirano for food; Prato and Biella for textiles-wearing apparel; Montegrano, Civitanova Marche and Santa Croce sull’Arno for leather products-footwear; Lucca for papermaking; Civita Castellana for ceramic products; Borgomanero for machinery (taps and fittings), Arezzo for jewelry; and Altamura for furniture.

For a global classification of the main “Made in Italy” manufacturing specializations of the various Istat IDs measured in terms workers employed see Table 2.8. The most important Italian district specialization is the LMA of Prato in textiles-wearing apparel: there are more than 41,000 workers in this sector (without considering that the Prato textile sector overflows into the Florence and Pistoia LMAs), followed by Busto Arsizio, again in textiles-wearing apparel; Bergamo in metal and metal products; and Biella and Como, both in textiles-wearing apparel. Overall, there are 73 Istat IDs with more than 5000 workers in the typical “Made in Italy” sectors.

The overview provided by Table 2.8, is not completely exhaustive, when it comes to large industrial “Made in Italy” districts. For reasons already mentioned above, the

Table 2.8 Major “Made in Italy” manufacturing specializations of districts identified by Istat: 2001 data

	Sectors	Districts	Persons employed in local units
1	Textiles and wearing apparel	Prato	41,449
2	Textiles and wearing apparel	Busto Arsizio	29,113
3	Metals	Bergamo	25,555
4	Textiles and wearing apparel	Biella	22,742
5	Textiles and wearing apparel	Como	21,991
6	Metals	Brescia	21,584
7	Metals	Lecco	20,480
8	Other manufacturing ^a	Seregno	19,407
9	Machinery	Bergamo	17,208
10	Leather and leather products	Santa Croce sull’Arno	16,203
11	Leather and leather products	Civitanova Marche	15,822
12	Machinery	Busto Arsizio	15,118
13	Textiles and wearing apparel	Bergamo	14,943
14	Metals	Seregno	14,895
15	Metals	Busto Arsizio	13,670
16	Machinery	Modena	12,940
17	Machinery	Brescia	11,921

(continued)

Table 2.8 (continued)

	Sectors	Districts	Persons employed in local units
18	Metals	Lumezzane	11,830
19	Textiles and wearing apparel	Carpi	11,647
20	Leather and leather products	Arzignano	11,333
21	Other manufacturing ^a	Arezzo	11,272
22	Machinery	Reggio nell'Emilia	10,968
23	Other manufacturing ^a	Pordenone	10,890
24	Metals	Chiari	9493
25	Other manufacturing ^a	Vicenza	9437
26	Metals	Como	9240
27	Metals	Vicenza	9210
28	Machinery	Pordenone	9136
29	Metals	Modena	8706
30	Other manufacturing ^a	Alessandria	8632
31	Textiles and wearing apparel	Castelfranco Veneto	8604
32	Machinery	Seregno	8292
33	Metals	Reggio nell'Emilia	8128
34	Rubber and plastics	Chiari	7934
35	Machinery	Vicenza	7798
36	Textiles and wearing apparel	Seregno	7719
37	Other manufacturing ^a	Bassano del Grappa	7705
38	Machinery	Conegliano	7697
39	Machinery	Vigevano	7671
40	Machinery	Borgomanero	7545
41	Metals	Conegliano	7311
42	Machinery	Lecco	7130
43	Other manufacturing ^a	Pesaro	7106
44	Metals	Castelfranco Veneto	6777
45	Machinery	Castelfranco Veneto	6741
46	Textiles and wearing apparel	Chiari	6734
47	Metals	Bassano del Grappa	6731
48	Paper, publishing and printing	Bergamo	6705
49	Rubber and plastics	Bergamo	6617
50	Textiles and wearing apparel	Barletta	6561
51	Metals	Pordenone	6426
52	Rubber and plastics	Busto Arsizio	6318
53	Leather and leather products	Fermo	6193
54	Leather and leather products	Montebelluna	6161
55	Metals	Vigevano	5997
56	Leather and leather products	Montegrano	5869
57	Textiles and wearing apparel	Thiene	5842

(continued)

Table 2.8 (continued)

	Sectors	Districts	Persons employed in local units
58	Food, beverage and tobacco	Modena	5819
59	Textiles and wearing apparel	Brescia	5563
60	Textiles and wearing apparel	Borgosesia	5531
61	Metals	Salò	5489
62	Textiles and wearing apparel	Lecco	5447
63	Leather and leather products	Barletta	5396
64	Other manufacturing ^a	Como	5332
65	Food, beverage and tobacco	Reggio nell'Emilia	5307
66	Textiles and wearing apparel	Vicenza	5219
67	Metals	Castiglione delle Stiviere	5176
68	Other manufacturing ^a	Altamura	5140
69	Non-metallic mineral products ^{b,c}	Bergamo	5133
70	Machinery	Schio	5117
71	Machinery	Carpi	5112
72	Textiles and wearing apparel	Montebelluna	5054
73	Food, beverage and tobacco	Bergamo	5015

Ranking by number of persons employed in local units

^aFurniture and jewelry

^bTiles and ornamental stones

^cThe figure for Bergamo suffers heavily is not representative due to the presence of cement factories which are not related to the typical “Made in Italy” products

Source Compiled by Marco Fortis using data from Istat (2006a)

filters used by Istat in identifying IDs has led to the “disappearance” of some fundamentally relevant industrial districts since they have been excluded from the LMAs defined as being comprised of “small and medium-sized manufacturing enterprises”. Some of the “forgotten” districts (which employ more than 200,000 people) are listed in Table 2.9, and can be opportunely integrated with Table 2.8. Firstly, there is the LMA of Sassuolo specialized in the processing of non-metallic mineral products (tiles and ornamental stones). It would actually rank 5th in terms of employment in its sector of specialization if it were inserted in the classification of large manufacturing “Made in Italy” specializations, identified by Istat as IDs (in other words, if it were officially listed in Table 2.8). Among the other “forgotten” districts we find the LMAs of Bologna, Padua, and Parma for industrial engineering; Florence for leather products; Treviso and Albino for textiles-wearing apparel; Naples, Padua and Venice for footwear; Treviso, Gorizia, Udine, Matera, Bari and Gioia del Colle for furniture; Castel Goffredo and Asola for hosiery; Verona, Pietrasanta and Carrara for ornamental stones, just to cite the main ones.

Table 2.9 Some of the main “Made in Italy” manufacturing district specializations in Labor Market Areas not considered “districts” by Istat: 2001 data

	Sectors	Districts	Persons employed in local units
1	Non-metallic mineral products ^a	Sassuolo	22,312
2	Machinery	Bologna	21,134
3	Machinery	Padua	12,909
4	Leather and leather products	Florence	11,630
5	Textiles and wearing apparel	Treviso	10,600
6	Textiles and wearing apparel	Florence	10,001
7	Machinery	Parma	8680
8	Leather and leather products	Naples	8663
9	Textiles and wearing apparel	Albino	7956
10	Machinery	Vigevano	7671
11	Other manufacturing ^b	Gorizia	6801
12	Textiles and wearing apparel	Castel Goffredo	6004
13	Non-metallic mineral products	Verona	5523
14	Leather and leather products	Padua	5520
15	Rubber and plastics	Varese	5298
16	Other manufacturing ^b	Treviso	5149
17	Non-metallic mineral products ^a	Venice	3989
18	Leather and leather product	Venice	3979
19	Other manufacturing ^b	Udine	3775
20	Leather and leather products	Montecatini-Terre	3738
21	Leather and leather products	Verona	3712
22	Leather and leather products	Cesenatico	3092
23	Textiles and wearing apparel	Putignano	3011
24	Other manufacturing ^b	Matera	2924
25	Other manufacturing ^b	Bari	2801
26	Wood and wood products	Treviso	2770
27	Textiles and wearing apparel	Asola	2766
28	Other manufacturing	Gioia del Colle	2544
29	Non-metallic mineral products ^a	Pietrasanta	2236
30	Non-metallic mineral products ^a	Carrara	2068

Ranked by number of persons employed in local units

^aTiles and ornamental stones

^bFurniture and jewelry

Source Compiled by Marco Fortis using data from Istat (2006a)

2.5 The Main “Made in Italy” Industrial Districts Identified by Fondazione Edison

The author has elaborated a different map from the Istat Italian Industrial Districts map on behalf of the Fondazione Edison. It should not be seen as an “alternative” map, but rather as a “complementary” tool for analyzing the multifaceted nature of Italian IDs.

The Fondazione Edison map is also based on the Istat 2001 data of the 686 Labor Market Areas. However, rather than using Istat's methodological and statistical approach to identify the "industrial districts of small and medium-sized enterprises" (which could be defined as socio-economic geography), the Fondazione Edison mainly concentrates on product specializations by district, following a methodological and statistical approach which gives precedence primarily to the industrial economic aspects of IDs. The Fondazione Edison also considers IDs and SMEs, using different parameters from those used by Istat. This has led to some Labor Market Areas not being considered as Industrial Districts since they are "dominated" by large firms (for example Varese's aerospace, or Verona's thermomechanical industry). Some large LMAs comprised of large firms have been excluded even if they border on and are enmeshed with important "Made in Italy" manufacturing IDs (for example: the LMA of Belluno and Agordo in eyewear, which will be assessed below).

2.5.1 Criteria for Identifying "Made in Italy" Industrial Districts

The objective of the Fondazione Edison ID map is to highlight all those cases where a LMA has one or more significant product specializations by SMEs in the various typical "Made in Italy" manufacturing sectors. This is independent of whether the selected LMA has more workers employed in services than industry (while Istat, on the other hand, would automatically exclude them from its list of potential "Industrial Districts"). The Fondazione Edison, furthermore, also considers IDs which are within a "non-manufacturing LMA" (while Istat would regard it as a reason for exclusion).

The main phases adopted by the Fondazione Edison for identifying the major "Made in Italy" specialization districts are:

1. to begin with, 91 categories of products have been identified from the ATECO classification (with a 5-digit breakdown) which belong to the 4Fs (Fashion and cosmetics; Food and wine; Furniture and ceramic tiles; Fabricated metal products, machinery and transport equipment), as well as paper, plastics and rubber. Of the 91 selected products, 89 pertain to the manufacturing industry, 1 to agricultural activities (vine and winemaking industry), and 1 to the mining industry (quarrying of ornamental stones)¹⁶;
2. for each category of products, certain necessary parameters have been identified to classify a LMA as a "specialized district". These parameters are: (a) a minimum

¹⁶The analysis of the vine and winemaking sector includes only wine making firms and the bottling industry; the agricultural aspect, i.e. vine and grape firms are not considered. For a quick overall evaluation of the economic relevance of the winemaking sector see Fortis (2005a), footnote on p. 53 as well as Chap. 6 on *Food and Wine*.

- number of local companies which have a minimum number of workers in the sector of specialization; (b) a level of employment in the sector of specialization of firms employing less than 250 workers which cannot be below 33.3 % (minimum level of SME presence); (c) a sufficiently significant coefficient of specialization;
3. those LMAs which simultaneously fulfil all three requirements and are considered an ID are:
 - *vine and wine making companies, food industries and quarrying firms*—for LMAs to be on the list of “districts”, the minimum number of local units in the sector of specialization is fixed at 25, the minimum level of employment in the sector of specialization is 250 workers and the minimum coefficient of specialization is 2;
 - *manufacturing sectors with up to 49,999 workers employed nationally*—for a LMA to be on the list of “districts”, it must have a minimum of 10 local units in the sector of specialization of the LMA, a minimum employment level per unit in the sector of specialization of 500 workers, and a minimum coefficient of specialization of 2;
 - *manufacturing sectors which employ between 50,000 and 99,999 workers nationally*—for a LMA to be on the list of “districts”, it must have a minimum of 10 local units in the sector of specialization of the LMA, a minimum employment level per unit in the sector of specialization of 750 workers, and a minimum coefficient of specialization of 1.5;
 - *manufacturing sectors with more than 100,000 workers employed nationally*—for a LMA to be on the list of “districts”, it must have a minimum of 10 local units in the sector of specialization of the LMA, a minimum employment level per unit in the sector of specialization of 1000 workers, and a minimum specialization coefficient of 1.25.¹⁷

On the basis of these parameters, using the Istat 2001 Census of Industry and Services, 153 LMAs have been identified that represent one or more product specializations of the 91 ATECO product categories examined, for a total of 473 examples of significant “district” specializations (see Table 2.10 for a cursory overview of LMA-Districts). It is worthwhile mentioning that this selection *does not consider all possible cases* of district product specializations, but *only the most*

¹⁷These are particularly stringent parameters since they are applied to statistics in economic sectors with a high level of disaggregation (using the ATECO 5-digit breakdown classification). In the case of meat based products for example, in line with the established parameters, the minimum number of local companies required of an LMA to be considered a “district” is 25; the minimum number of workers is 250, while the minimum employment quota per small and medium-sized unit is 33.3 % (that is at least 1/3 of the total—this is a basic condition which must be adhered to in all economic sectors). Furthermore, the minimum coefficient of specialization is 2 (thus, at least 2 times higher than the Italian average). The application of these parameters has led to identifying meat based products by sector in only the following 4 main specialized “districts”: Langhirano, Parma, Modena and Gemona del Friuli. They more or less correspond to the two areas where Parma ham and San Daniele ham are produced as well as other important typical pork products (cured meats, cold cuts, baked ham, etc.).

Table 2.10 The Fondazione Edison map of major “Made in Italy” manufacturing district specializations: 2001 data

(a) Breakdown by macro-sector				
Macro-sector		Number of cases of LMAs including one or more important district specializations	Persons employed	Local units
Food and wine		45	25,425	3929
Fashion and cosmetics		178	349,500	26,827
Furniture and ceramic tiles		91	155,445	11,571
Fabricated metal products, machinery and transport equipment		124	161,511	7109
Paper, rubber and plastics		35	61,415	3070
Total		473	753,296	52,506
(b) Breakdown by main geographic area				
Geographic area	Number of cases of LMAs including one or more important district specializations		Persons employed	Local units
North-west Italy	160		265,574	16,325
North-east Italy	170		256,440	15,616
Central Italy	99		169,765	16,249
South Italy and Islands	44		61,517	4316
Total	473		753,296	52,506
(c) Summary of Labor Market Areas (LMAs)				
LMAs with one or more “Made in Italy” district specializations identified according to the ATECO 2002, 5-digit, classification	Number of LMAs	Cumulated LMAs	Persons employed	Cumulated persons employed
>30,000, persons employed in the sectors of specialization	2	2	62,897	62,897
29,999 < 20,000, persons employed in the sectors of specialization	4	6	96,070	158,967
19,999 < 10,000, persons employed in the sectors of specialization	16	22	222,474	381,441
9999 < 5000, persons employed in the sectors of specialization	24	46	185,430	566,871
4999 < 2500, persons employed in the sectors of specialization	27	73	91,627	658,498
2499 < 1000, persons employed in the sectors of specialization	45	118	74,090	732,588
999 < 500, persons employed in the sectors of specialization	25	143	17,119	749,707

(continued)

Table 2.10 (continued)

(c) Summary of Labor Market Areas (LMAs)				
LMAs with one or more “Made in Italy” district specializations identified according to the ATECO 2002, 5-digit, classification	Number of LMAs	Cumulated LMAs	Persons employed	Cumulated persons employed
499 < 250, persons employed in the sectors of specialization	10	153	3589	753,296

The map does not exhaust all possible cases of district specializations; it covers only the most important ones according to the selection parameters illustrated in the text

Source Compiled by Marco Fortis using data from Istat ([2006a](#))

significant ones. The 473 district product specializations classified by the Fondazione Edison have an overall workforce of 753,000 units. The employment figure corresponds to 15.4 % of the whole Italian manufacturing workforce: a notable figure given it is exclusively linked to “Made in Italy” sectors of specialization and only major districts are considered.

2.5.2 A General Overview

On the basis of the map created by the Fondazione Edison (Table 2.10), the Fashion and cosmetics sector (which besides textiles-wearing apparel, includes leather products, footwear, jewelry and eyewear) is the one which has the largest number of District product specializations: 178 Labor Market Areas with 349,500 workers. Next in importance is the Fabricated metal products, machinery and transport equipment sector with 124 district specializations and 161,511 workers, while the Furniture and ceramic tiles sector has 91 district specializations which employ 155,445 workers. A smaller number of examples of territorial specializations, which are nonetheless important, are found in the Food and wine and the paper-rubber-plastic sectors.

Regarding the geographical distribution of the main districts of specialization of Labor Market Areas, the Fondazione Edison map highlights a strong concentration of workers in the Northwest (266,000 workers) and the Northeast (256,000 workers), followed by Central Italy (170,000 workers), while the South lags behind (61,000 workers). As regards local units, the Northwest, Northeast and Central Italy are more or less aligned. The number of workers per local units tend to be less in the Central districts (where artisans still prevail in making leather products, jewelry, etc.) with respect to both the North and South.

Overall, as stated previously, there are 153 LMAs which represent one or more product specializations in the typical “Made in Italy” districts. There are two major LMA-Districts (Prato and Busto Arsizio) each with over 30,000 workers employed in their corresponding main sector of specialization. They are followed by 4 LMAs

(Seregno, Como, Sassuolo and Biella) which employ in their district of specialization between 20,000 and 29,999 workers. After these six main districts, there are 67 other LMAs with 2500 workers in typical “Made in Italy” sectors of specialization. In total there are 73 LMA-Districts with at least 2500 workers in the typical “Made in Italy” sectors of specialization, with an overall employment of around 658,000 workers, which represent 87 % of the total work force of the 153 LMA-districts included in the Fondazione Edison map. The other 80 LMA-Districts with less than 2500 workers employ around 95,000 people (Table 2.10).

Some LMAs have only one main manufacturing specialization, for example Cesenatico (San Mauro Pascoli) is specialized in footwear. Other LMAs are characterized by one or more activities in the vertically integrated production chain of a large sector of specialization, for example Prato is specialized in textiles-wearing apparel, but also in the related specialized machinery, which for Prato is textile machinery. There are various LMAs with multiple district specializations, for example the LMA of Busto Arsizio includes the both textiles-wearing apparel and plastics, as well as the horizontal production chain for processing plastics.

2.5.3 *Industrial District “Leaders” in Various Products*

For each of the 91 ATECO categories of “Made in Italy” products, it is possible to identify a district “leader”, often followed by other districts, of almost analogous or slightly lesser relevance. Table 2.11 gives an overview of the various product LMA district “leaders”. The LMAs listed are those which, after having satisfied the multiple necessary conditions for being considered a “district”, have the largest number of workers employed in the local units in each of the sectors of specialization considered. Next to each LMA “leader” listed, is the number of local units it contains, and the coefficient of specialization obtained in the sector of specialization considered. The picture which emerges from this data is particularly interesting. There is a long list of districts which lead the various sectors: Verona for vine and winemaking companies and wines, Langhirano for meat-based products, Nocera Inferiore for processing vegetables, Reggio Emilia for cheeses, Prato for spinning and weaving carded wool, Biella for spinning and weaving combed wool, Busto Arsizio for weaving cotton, Como for working silk fabrics, Arzignano for leather tanning, Florence for leather products, Civitanova Marche for leather footwear, Lucca for paper, Chiari for rubber products, Sassuolo for ceramic tiles, Borgomanero for taps, Bologna for packaging machinery, Gorizia for chairs, Altamura for sofas, Pesaro for kitchen furniture, Seregno for wood furniture, Arezzo for jewelry, Pieve di Cadore for eyewear, etc. Next are the specialized districts which employ fewer workers, but are nonetheless important: Omegna for household goods, Busto Arsizio for embroidery, Civita Castellana for ceramic sanitary products, Venice for blown glass, Tempio Pausania for the processing of cork, Bassano del Grappa for ornamental ceramics, etc.

2.5.4 Industrial Districts Highly Specialized in Multiple Sectors

There are many other significant sectors, besides the district “leaders”, in almost all of the sectors examined. Obviously, they cannot all be listed here. Only those with the highest coefficients of specialization will be mentioned.

Tables 2.12, 2.13, 2.14, 2.15 and 2.16 list the main LMAs by their level of specialization and the number of employed workers in the various production sectors of the 5 main product categories considered: Food and wine, Fashion and cosmetics, Furniture and ceramic tiles, Fabricated metal products, machinery and transport equipment, and finally, Paper, rubber and plastics. The ranking solely considers those LMAs with a very high degree of sector specialization and is thus characterized by a coefficient of specialization per product >5 . This type of ID can be considered a “super specialized district” in the various sectors of production. There are many ID “leaders” in the “super specialized districts” category listed in Table 2.11.

The Emilia meat based production area (Langhirano, Parma and Modena) and the tomato processing area of the Campania Region (Nocera Inferiore, Nola, Sarno and Torre del Greco) occupy the prime positions in the ranking of the highest degree of district specializations in the “Food and wine” industry (Table 2.12). They place even before Alba for wines and Gioia del Colle for cheeses. The classification includes many other LMAs with a strong specialization in typical food products (from wines to mozzarella, to parmesan cheese, etc.). Other LMAs with important district specializations not included in Table 2.12, but with a coefficient of specialization greater than 2.5 are Verona for wines, Reggio Emilia for Reggiano Parmesan cheese, Novara for Gorgonzola cheese, and Salerno for mozzarella and tomato processing. The ranking does not include vine and wine-growing companies since they are not considered part of the manufacturing industry. For the sake of completeness, the largest LMAs which employ the most workers in the local winegrowing sector are, according to the 2001 Istat census: Verona, Alba, Siena, Gorizia and Florence.

The districts with the highest degree of specialization in “Fashion and cosmetics” (Table 2.13) which have ranked best for the number of workers employed are: Arzignano for leather tanning, Arezzo, Alessandria (with the Valenza Po hub) and Vicenza for jewelry, Civitanova Marche for leather footwear, and Castel Goffredo for ladies’ hosiery. However, it is the 4 big districts in textiles-wearing apparel: Prato, Biella, Busto Arsizio and Como that have the most number of workers employed in the various sectors of production specialization. Prato’s specializations are finishings, carded woolen fabrics and carded wool yarns. Biella ranks first in combed wool weaving. Como is the undisputed leader when it comes to silk textiles and textile finishings, while the LMA of Busto Arsizio is mainly specialized in textile finishings and cotton fabrics. However, it is also a leader in market niches: embroidery tulle, lace, embroidery, bed and table linens, and knitwear (Gallarate area). The “Fashion and cosmetics” production segment is quite notable in Santa

Table 2.11 The Fondazione Edison Map for “leading” industrial districts in various “Made in Italy” manufacturing product categories: 2001 data

ATECO categories (5-digit) of “Made in Italy” products	LMA district “leader”	Local units in the area of specialization	Persons employed in local units in the sector of specialization	Coefficient of specialization (Italy’s average = 1)
Vine and wine making firms	Verona	390	823	-
Meat products	Langhirano	188	1769	100.7
Processing of fruits and vegetables	Nocera Inferiore	71	1890	36.4
Cheese and dairy products	Reggio nell’Emilia	103	854	2.7
Wines	Verona	46	814	4.4
Quarrying of ornamental stones	Carrara	85	708	-
Cotton yarns	Chiari	57	1701	17.2
Wool-carding	Prato	251	1850	69.4
Carded wool yarns	Prato	375	4046	41.7
Wool worsted	Biella	20	854	93.1
Worsted wool yarns	Biella	181	4509	73.0
Throwing of synthetic or artificial yarns	Prato	153	1050	12.3
Spinning of other textile fibres	Prato	501	2447	30.4
Cotton fabrics	Busto Arsizio	208	4239	10.2
Carded wool fabrics	Prato	545	4591	44.8
Worsted wool fabrics	Biella	74	5278	67.9
Silk fabrics	Como	208	6433	54.3
Fabrics of other textile fibers	Como	75	1521	12.9
Finishing of textiles	Prato	446	8264	19.8

(continued)

Table 2.11 (continued)

ATECO categories (5-digit) of "Made in Italy" products	LMA district "leader"	Local units in the area of specialization	Persons employed in local units in the sector of specialization	Coefficient of specialization (Italy's average = 1)
Tablecloths and bed linens	Busto Arsizio	141	1684	7.6
Other products of textile material	Prato	94	804	6.7
Tulles and laces	Busto Arsizio	28	630	23.2
Embroidery	Busto Arsizio	236	1799	15.0
Knitwear	Prato	319	1815	8.2
Pullovers and cardigans	Carpi	211	2056	12.8
Other outer knitwear	Carpi	36	572	18.0
Knitted underwear	Busto Arsizio	65	778	9.4
Leather apparel	Empoli	167	1274	68.8
Other outerwear	Treviso	208	4654	3.4
Underwear	Bologna	47	1776	4.6
Wearing accessories	Como	221	1974	6.4
Tanning of leather	Arzignano	550	10,532	51.5
Leather goods	Florence	1371	8893	17.9
Footwear (not plastic and rubber)	Civitanova Marche	611	8095	25.7
Parts of footwear (not plastic and rubber)	Civitanova Marche	670	4629	29.6
Plastic and rubber footwear	Barletta	178	2562	34.4

(continued)

Table 2.11 (continued)

ATECO categories (5-digit) of "Made in Italy" products	LMA district "leader"	Local units in the area of specialization	Persons employed in local units in the sector of specialization	Coefficient of specialization (Italy's average = 1)
Sawmilling and processing of wood	Gorizia	111	981	12.3
Plywood and laminboard	Viadana	16	1207	47.0
Other wood products	Portogruaro	52	1484	16.2
Cork processing	Tempio Pausania	36	755	1191.9
Manufacturing of paper and paperboard	Lucca	16	1178	15.4
Wavy paperboard and cardboard for packing	Lucca	29	1458	11.6
Paper for domestic use and toilet paper	Lucca	24	1087	35.9
Other rubber products	Chiari	214	4811	17.0
Plastic plates and profiles	Varese	27	1424	8.6
Plastic packing goods	Varese	23	1054	5.7
Other plastic products	Turin	327	5755	1.3
Processing of flat glass	Pesaro	43	1127	15.1
Manufacturing of hollow glass	Empoli	18	669	22.2
Hand-blown glass	Venice	219	1999	42.1
Ornamental ceramics	Bassano del Grappa	205	1477	13.8
Ceramic sanitary fixtures	Civita Castellana	50	2079	303.6
Ceramic tiles	Sassuolo	317	19,727	62.5

(continued)

Table 2.11 (continued)

ATECO categories (5-digit) of “Made in Italy” products	LMA district “leader”	Local units in the area of specialization	Persons employed in local units in the sector of specialization	Coefficient of specialization (Italy's average = 1)
Processing of stones and marble	Verona	275	3220	7.0
Artistic working of marble	Verona	32	693	7.5
Pieces of pressed Steel	Rivarolo Canavese	45	1425	47.7
Treatment and coating of metals	Brescia	136	1572	2.2
Cutlery	Maniago	91	617	150.0
Locks and hinges	Seregno	22	1006	6.1
Threading, nuts and bolts	Seregno	37	1377	8.4
Pots, pans and household objects	Omegna	46	1381	90.1
Other fabricated metal products and small metal parts	Lecco	278	3737	6.2
Pumps and compressors	Turin	39	2201	2.1
Taps and valves	Borgomanero	232	6259	63.4
Transmission parts	Bologna	64	2286	5.6
Lifting and handling equipment	Milan	181	5204	2.1
Non domestic cooling equipment	Padua	75	2179	4.8
Agricultural machinery	Reggio nell'Emilia	52	1042	5.7
Machine tools	Turin	172	3761	1.7
Machinery for metallurgy	Brescia	19	1094	10.6
Machinery for food processing	Parma	155	3226	16.9
Machinery for textile production	Brescia	28	1888	7.6
Machinery for leather production	Vigevano	130	2055	51.8

(continued)

Table 2.11 (continued)

ATECO categories (5-digit) of “Made in Italy” products	LMA district “leader”	Local units in the area of specialization	Persons employed in local units in the sector of specialization	Coefficient of specialization (Italy’s average = 1)
Machinery for paper production	Lucca	19	1226	40.5
Machinery for packing	Bologna	162	6063	18.3
Machinery for plastics and other materials	Turin	134	4469	2.7
Machinery for wood industry	Rimini	23	1004	37.3
Electric lamps and lighting equipment	Milan	201	2679	2.0
Medical instruments	Mirandola	50	1835	65.0
Frames and glasses	Pieve di Cadore	181	2304	162.2
Pleasure and sporting boats	Viareggio	64	762	61.1
Chairs	Gorizia	311	3849	52.1
Seats and armchairs	Altamura	217	4655	61.5
Metal furniture	Seregno	62	867	3.4
Shop furniture	Seregno	116	1173	3.7
Kitchen furniture	Pesaro	41	1804	30.3
Other wood furniture	Seregno	1251	9310	7.6
Jewelry	Arezzo	1163	9924	55.1
Musical instruments	Recanati	87	887	102.1
Buttons	Chiari	139	1852	39.2

“Leaders” are LMAs with the highest number of persons employed in each production category

Source Compiled by Marco Fortis using data from Istat (2006a)

Table 2.12 Food and wine: the main “Made in Italy” district specializations identified by Fondazione Edison: 2001 data

	ATECO categories of (5-digit) of “Made in Italy” products	Main LMAs with strong district specializations	Persons employed in the LMA in the sector of specialization	Coefficient of specialization (Italy’s average = 1)
1	Processing of fruit and vegetables	Nocera Inferiore	1890	36.4
2	Meat products	Langhirano	1769	100.7
3	Meat products	Parma	1473	7.0
4	Meat products	Modena	1167	5.2
5	Processing of fruit and vegetables	Nola	975	15.5
6	Processing of fruit and vegetables	Sarno	726	61.7
7	Processing of fruit and vegetables	Torre del Greco	706	13.5
8	Wines	Alba	647	14.4
9	Cheese and dairy products	Gioia del Colle	513	10.6
10	Cheese and dairy products	Fidenza	474	7.4
11	Wines	Canelli	432	34.7
12	Meat products	Gemona del Friuli	399	8.9
13	Wines	Montebelluna	393	5.1
14	Cheese and dairy products	Putignano	341	6.4
15	Cheese and dairy products	Campobasso	326	9.9
16	Cheese and dairy products	Sessa Aurunca	306	22.6
17	Wines	Marsala	300	27.7
18	Cheese and dairy products	Aversa	267	5.0

Ranked by number of persons employed in LMAs with a coefficient of specialization >5

LMA leaders of wine and grapes firms are excluded

Other notable specializations: Verona-wine; Novara-cheese; Salerno-cheese and processing of vegetables

Source Compiled by Marco Fortis using data from Istat (2006a)

Table 2.13 Fashion and cosmetics: top 30 strongest “Made in Italy” district specializations identified by Fondazione Edison: 2001 data

	ATECO (5-digit) categories of “Made in Italy” products	The main LMAs with strong district specializations	Persons employed in the LMA in the sector of specialization	Coefficient of specialization (Italy’s average = 1)
1	Tanning of leather	Arzignano	10,532	51.5
2	Jewelry	Arezzo	9924	55.1
3	Leather goods	Florence	8893	17.9
4	Tanning of leather	Santa Croce sull’Arno	8482	65.4
5	Finishing of textiles	Prato	8264	19.8
6	Footwear (not plastic or rubber)	Civitanova Marche	8095	25.7
7	Jewelry	Alessandria	7759	43.7
8	Jewelry	Vicenza	7097	15.9
9	Finishing of textiles	Como	6519	12.9
10	Silk fabrics	Como	6433	54.3
11	Worsted wool fabrics	Biella	5278	67.9
12	Finishing of textiles	Busto Arsizio	4718	6.3
13	Parts of footwear (not plastic or rubber)	Civitanova Marche	4629	29.6
14	Carded wool fabrics	Prato	4591	44.8
15	Worsted wool yarns	Biella	4509	73.0
16	Tanning of leather	Solofra	4240	111.4
17	Cotton fabrics	Busto Arsizio	4239	10.2
18	Hosiery (knitted)	Castel Goffredo	4111	83.3
19	Carded wool yarn	Prato	4046	41.7
20	Footwear (not plastic or rubber)	Fermo	3977	25.2
21	Footwear (not plastic or rubber)	Montegranaro	3578	35.3
22	Footwear (not plastic or rubber)	Casarano	3419	26.1

(continued)

Table 2.13 (continued)

	ATECO (5-digit) categories of "Made in Italy" products	The main LMAs with strong district specializations	Persons employed in the LMA in the sector of specialization	Coefficient of specialization (Italy's average = 1)
23	Footwear (not plastic or rubber)	Santa Croce sull'Arno	3370	10.4
24	Footwear (not plastic or rubber)	Montebelluna	3313	8.2
25	Parts of footwear (not plastic or rubber)	Santa croce sull'Arno	3267	20.3
26	Carded wool yarn	Biella	3046	51.1
27	Jewelry	Bassano del Grappa	2945	9.3
28	Plastic and rubber footwear	Barletta	2562	34.4
29	Spinning of other textile fibres	Prato	2447	30.4
30	Plastic and rubber footwear	Civitanova Marche	2425	33.0

Ranked by number of persons employed in LMAs with a coefficient of specialization >5

Other notable specializations: Pieve di Cadore-glasses; Empoli-leather clothes; Castiglione delle Stiviere and Asola-hosiery

Source Compiled by Marco Fortis using data from Istat (2006a)

Table 2.14 Furniture and ceramic tiles: top 30 strongest “Made in Italy” district specializations identified by Fondazione Edison: 2001 data

	ATECO (5-digit) categories of “Made in Italy” products	Main LMAs with strong district specializations	Persons employed in the LMA in the sector of specialization	Coefficient of specialization (Italy’s average = 1)
1	Ceramic tiles	Sassuolo	19,727	62.5
2	Other wood furniture	Seregno	9310	7.6
3	Other wood furniture	Pordenone	7228	10.4
4	Seats and armchairs	Altamura	4655	61.5
5	Seats and armchairs	Seregno	4547	7.7
6	Chairs	Gorizia	3849	52.1
7	Other wood furniture	Pesaro	3392	10.2
8	Processing of stones and marble	Verona	3220	7.0
9	Other wood furniture	Bassano del Grappa	3049	5.2
10	Other wood furniture	Bovolone	2951	16.6
11	Seats and armchairs	Matera	2667	56.8
12	Other wood furniture	Legnago	2637	13.5
13	Other wood furniture	Pieve di Soligo	2515	16.0
14	Seats and armchairs	Gioia del Colle	2320	43.1
15	Seats and armchairs	Pistoia	2297	22.2
16	Ceramic sanitary fixtures	Civita Castellana	2079	303.6
17	Hand-blown glass	Venice	1999	42.1
18	Seats and armchairs	Forlì	1951	14.5
19	Other wood furniture	Portogruaro	1843	6.7
20	Kitchen furniture	Pesaro	1804	30.3
21	Ceramic tiles	Reggio nell’Emilia	1792	5.6
22	Other wood furniture	Montagnana	1595	9.5
23	Processing of stones and marble	Pietrasanta	1550	55.9

(continued)

Table 2.14 (continued)

	ATECO (5-digit) categories of “Made in Italy” products	Main LMAs with strong district specializations	Persons employed in the LMA in the sector of specialization	Coefficient of specialization (Italy’s average = 1)
24	Chairs	Udine	1538	17.6
25	Seats and armchairs	Bari	1525	6.2
26	Kitchen furniture	Pordenone	1524	12.2
27	Processing of stones and marble	Carrara	1517	40.8
28	Other wood furniture	Pontedera	1510	5.6
29	Other wood products	Portogruaro	1484	16.2
30	Ornamental ceramics	Bassano del Grappa	1477	13.8

Ranked by number of persons employed in LMAs with a coefficient of specialization >5

Other notable specializations: Bassano del Grappa-ornamental ceramics; Grezzana-ornamental stones; Viadana-laminboard; Tempio Pausania and Calangianus-cork

Source Compiled by Marco Fortis using data from Istat (2006a)

Table 2.15 Fabricated metal products, machinery and transport equipment: top 30 best “Made in Italy” district specializations identified by Fondazione Edison: 2001 data

	ATECO (5-digit) categories of “Made in Italy” products	Main LMAs with significant district specializations	Persons employed in the LMA in the sector of specialization	Coefficient of specialization (Italy’s average = 1)
1	Taps and valves	Borgomanero	6259	63.4
2	Machinery for packing	Bologna	6063	18.3
3	Other fabricated metal products and small metal parts	Lecco	3737	6.2
4	Machinery for food processing	Parma	3226	16.9
5	Driving elements	Bologna	2286	5.6
6	Taps and valves	Lumezzane	2098	20.4
7	Machinery for leather production	Vigevano	2055	51.8
8	Machinery for textiles production	Brescia	1888	7.6
9	Medical instruments	Mirandola	1835	65.0
10	Pumps and compressor	Vicenza	1811	7.2
11	Lifting and handling equipment	Modena	1775	5.5
12	Taps and valves	Borgosesia	1716	26.2
13	Machinery for textiles production	Biella	1675	13.7
14	Driving elements	Reggio nell’Emilia	1478	7.7
15	Treatment and coating of metals	Borgomanero	1447	7.1
16	Pieces of pressed Steel	Rivarolo Canavese	1425	47.7
17	Pots, pans and household objects	Omegna	1381	90.1
18	Threading, nuts and bolts	Seregno	1377	8.4
19	Other fabricated metal products and small metal parts	Lumezzane	1351	5.9
20	Pumps and compressors	Modena	1292	5.9

(continued)

Table 2.15 (continued)

	ATECO (5-digit) categories of "Made in Italy" products	Main LMAs with significant district specializations	Persons employed in the LMA in the sector of specialization	Coefficient of specialization (Italy's average = 1)
21	Non domestic cooling equipment	Casale Monferrato	1285	18.8
22	Transmission parts	Modena	1278	6.8
23	Machine tools	Piacenza	1274	6.3
24	Pumps and compressors	Reggio nell'Emilia	1268	5.6
25	Machinery for paper production	Lucca	1226	40.5
26	Treatment and coating of metals	Lumezzane	1159	5.4
27	Threading, nuts and bolts	Lecco	1124	10.1
28	Machinery for metallurgy	Brescia	1094	10.6
29	Machinery for textiles production	Prato	1079	5.4
30	Machinery for packing	Modena	1054	6.9

Ranked by number of persons employed in LMAs with a coefficient of specialization >5

Other notable specializations: Reggio Emilia-agricultural machinery; Rimini machine tools and machinery for wood industry; Suzzara-transmission parts; Viareggio and La Spezia-pleasure and sporting boats; Lumezzane-pots, pans and household objects; Recanati-musical instruments

Source Compiled by Marco Fortis using data from Istat (2006a)

Table 2.16 Paper, rubber and plastic: the main “Made in Italy” district specializations identified by Fondazione Edison: 2001 data

	ATECO (5-digit) categories of “Made in Italy” products	Main LMAs with strong district specializations	Persons employed in the LMA in the sector of specialization	Coefficient of specialization (Italy’s average = 1)
1	Other rubber products	Chiari	4811	17.0
2	Other plastic products	Recanati	2116	5.3
3	Wavy paperboard and cardboard packing goods	Lucca	1458	11.6
4	Plastic plates and profiles	Varese	1424	8.6
5	Manufacture of paper and paperboard	Lucca	1178	15.4
6	Paper for domestic use and toilet paper	Lucca	1087	35.9
7	Plastic packing goods	Varese	1054	5.7
8	Other rubber products	Ciriè	1026	12.2
9	Plastic packing goods	Alessandria	847	7.8
10	Paper for domestic use and toilet paper	Barga	546	69.1
11	Other rubber products	Lugo	515	6.0
12	Plastic plates and profiles	Lugo	507	8.2

Ranked by number of persons employed in LMAs with a coefficient of specialization >5
Other notable specializations: Busto Arsizio-plastic plates and other plastic products; Bergamo and Varese-other plastic products (both with a specialization coefficient <5

Source Compiled by Marco Fortis using data from Istat (2006a)

Croce sull'Arno, an area highly specialized in leather tanning and footwear. Other footwear LMAs are Fermo, Montegranaro, Montebelluna and Barletta.

Under “furniture and ceramic tiles” (Table 2.14), Sassuolo leads in the ceramic tiles sector with the most employed workers and for its high added value coefficient of specialization, ranking higher than Seregno (Brianza) and Pordenone (Alto Livenza) for wood furniture and Altamura, Matera and Gioia del Colle for sofas. The Gorizia LMA, which includes the Friuli chair district of Manzano and S. Giovanni al Natisone, is also among the most specialized in “Furniture and ceramic tiles” along with the hubs for processing ornamental stones of Verona and Pietrasanta-Carrara.

Under “Fabricated metal products, machinery and transport equipment” (Table 2.15), the most specialized LMA District area is taps-valves in Borgomanero (which includes the municipalities of S. Maurizio d'Opaglio, Pogno and Gozzano), and along with the LMA of Borgosesia constitutes the only significant hub leader on a world scale in this sector. It has significant spillovers in the treatment and coating of metals and various related production processes also in the LMAs of Varallo and Omegna. Lumezzane has a substantial presence in taps-fittings, household goods and jewelry. Another important district specialization is machinery: Bologna is a world leader in packaging machinery (see Chap. 4). Other important areas of specialization under “Fabricated Metal Products, Machinery and Transport Equipment” include Lecco for metal products, Parma for food processing machinery, Vigevano for machinery for the leather industry, Mirandola for medical equipment, Biella and Prato for mechanized textile processes, Omegna for metal household products, and Lucca for paper processing machinery. Other LMAs worth mentioning are those of Viareggio and La Spezia for leisure and sporting boats, Reggio Emilia for agricultural machinery, and Recanati for musical instruments (not included in Table 2.15).

The “paper, rubber and plastics” sector has fewer district specializations compared to the others mentioned, however, there are a few of relevant significance (Table 2.16). Those which stand out are Chiari for rubber products, and Lucca for paper and cardboard. The Varese-Busto Arsizio area is also important for plastics.

2.5.5 The Large Italian Manufacturing District Hubs

From the above analysis, it seems clear that myriad cases of district specializations can be found through an accurate statistical analysis of Italian LMAs. However, one must not forget that certain situations at the district level cannot be fully depicted in their complexity through the mere identification of a single LMA. Thus the method used for identifying districts must be broadened, if necessary, with other statistical elaborations and considerations. In fact, there are often cases in which a large industrial hub is composed of various LMAs and its territorial area spreads into various provinces (for example the district area of Cusio-Valsesia for taps), or regions (for example the furniture district of Livenza). In this case, a further step is

needed. LMAs must be aggregated to obtain a more compact and realistic overview of the economic impact of certain large districts; and if necessary, add to the LMA-Districts comprised of SMEs also LMAs of large firms specialized in the same sector. See Table 2.17 for an overview with examples of some large district hubs

Table 2.17 Some examples of large manufacturing district hubs specialized in “Made in Italy” products: 2001 data

Districts and products	Main LMAs	Persons employed in local units
ALTAMURA-MATERA		
Seats	Altamura	4655
	Matera	2667
	Gioia del Colle	2320
	Bari	1525
	Ginosa	371
	Total	11,538
FERMANO-MACERATESE		
(a) Footwear (not in plastic or rubber)	Civitanova Marche	8095
	Fermo	3977
	Montegranaro	3578
	Montegiorgio	1172
	Macerata	930
	Monte San Pietrangeli	826
	Recanati	466
(b) Parts of footwear (not in plastic or rubber)	Civitanova Marche	4629
	Fermo	1687
	Montegranaro	1541
	Montegiorgio	852
	Macerata	586
	Recanati	413
	Monte San Pietrangeli	338
(c) Plastic and rubber footwear	Civitanova Marche	2425
	Recanati	1038
	Montegranaro	371
	Montegiorgio	318
	Fermo	245
	Macerata	166
	Monte San Pietrangeli	34
	Total	33,687
CUSIO-VALSESIA		
(a) Taps and valves	Borgomanero	6259
	Borgosesia	1716
	Varallo	427
	Omegna	394

(continued)

Table 2.17 (continued)

Districts and products	Main LMAs	Persons employed in local units
(b) Treatment and coating of metals	Borgomanero	1447
	Borgosesia	177
	Total	10,420
VARESE-MILAN		
Rubber and plastics	Milan	18,310
	Seregno	4586
	Busto Arsizio	6318
	Varese	5298
	Sesto Calende	1996
	Total	36,508
CADORE-FELTRE		
Frames and glasses	Belluno	4359
	Agordo	3427
	Pieve di Cadore	2304
	Feltre	1688
	Auronzo di Cadore	732
	Total	12,510
CASTEL GOFFREDO		
Hoisery	Castel Goffredo	4111
	Castiglione delle Stiviere	1965
	Asola	1756
	Total	7832
LIVENZA-PIEVE DI SOLIGO		
(a) Wood and wood products	Pordenone	3625
	Portogruaro	3033
	Treviso	2770
	Conegliano	2491
	Pieve di Soligo	814
(b) Seats and armchairs	Conegliano	768
	Pordenone	457
	Pieve di Soligo	326
	Portogruaro	278
	Treviso	219
(c) Kitchen furniture	Pordenone	1524
	Treviso	768
	Portogruaro	589
	Pieve di Soligo	464
	Conegliano	332

(continued)

Table 2.17 (continued)

Districts and products	Main LMAs	Persons employed in local units
(d) Other wood furniture	Pordenone	7228
	Pieve di Soligo	2515
	Treviso	2139
	Portogruaro	1843
	Conegliano	1807
	Total	33,990
VICENZA-BASSANO DEL GRAPPA		
Jewellery	Vicenza	7097
	Bassano del Grappa	2945
	Arzignano	1407
	Padua	843
	Total	12,292
BRIANZA		
(a) Wood and wood products	Milan	3694
	Seregno	3452
	Como	1396
(b) Chairs	Seregno	611
(c) Seats and armchairs	Seregno	4547
	Como	608
	Milan	384
(d) Metal furniture	Seregno	867
	Milan	809
	Como	589
(e) Shop furniture	Seregno	1173
	Milan	1046
	Como	428
(f) Kitchen furniture	Seregno	519
(g) Other wood furniture	Seregno	9310
	Como	2792
	Milan	1095
(h) Processing of flat glass	Seregno	807
(i) Locks and hinges for furniture	Seregno	1006
	Como	728
	Total	35,861
PRATO-PISTOIA-FLORENCE		
Textiles and wearing apparel	Prato	41,449
	Florence	10,001
	Pistoia	4043
	Total	55,493

Source Compiled by Marco Fortis using data from Istat (2006a)

composed of various geographically adjacent LMAs. Their occupational relevance is such that it is often measured in tens of thousands of workers. The sole manufacturer of sofas (not including spillovers in manufacturing) in the Murgia district exceeds 10,000 workers, as does the district of Cusiano-Valsesiano for taps and fittings, which also has significant spillovers in the treatment and coating of metals. The Vicenza jewelry district and the Cadore eyewear district go well beyond 10,000 workers,¹⁸ while the Castel Goffredo district for hosiery is around 8000 workers. But it is the levels of employment of some of the historical geographic hubs in textiles-wearing apparel, footwear, furniture, and plastic products which are astounding in size. First place goes to Prato-Florence-Pistoia for the textiles-wearing apparel sector of 55,000 workers (in 2001). Next are the two large wood-furniture districts of Brianza¹⁹ and Livenza-Pieve di Soligo with more than 30,000 workers. The 30,000 mark is amply exceeded by the Milan-Varese district for rubber and plastics and Fermano-Maceratese²⁰ for footwear.

2.6 “Other” Districts: Fishing, Agriculture, Tourism, Culture

Industrial Districts not only play a typical and significant role in Italian industry: their presence and relevance have spread to other important economic sectors. Geo-agricultural districts, as previously mentioned, have an important role in the Italian agricultural industry, for example: the Trentino-Alto Adige district is known for apples, and Emilia-Romagna for fruit cultivation. Some scholars have even begun attempting to identify local rural systems (Basile and Checchi 2005). There have also been attempts at identifying fishing, tourism, non-profit districts as well as districts known for culture (Provasi 2004). Districts known for culture play a significant role in a country like Italy: a meaningful example is the Spoleto *Festival dei Due Mondi* (Bravo 2004).

Let's briefly assess two non-Industrial Districts: fishing and tourism, for the sake of example.

According to Istat figures, in Italy, fishing, fish farming and the related services represent only 0.1 % of national added value (using 1995 base prices) and 3.2 % of the primary sector (agriculture, forestry and fishing). Italy's maritime industry ranks 38th, and its contribution to global fishing is only 0.4 % (Istat 2006d). However, fishing districts represent an important part of the Italian system of production for

¹⁸In this case, the LMAs of Belluno and Agordo are included even though they are “dominated” by large companies. They are fully integrated in the district within which the role of MSEs remain amply significant and characteristic.

¹⁹Also, worthy of mention are the Brianza specializations in the processing of flat glass and hinges for furniture.

²⁰The leather and footwear industry is the most important manufacturing sector of the Marche Region in terms of employment.

their contribution to the agricultural industry and to gastronomic-tourism in certain regions and provinces. It thus merits careful analysis. An attempt at classifying the main deep sea and lagoon fishing Labor Market Areas is possible from the Istat 2001 Census of Industry and Services, which includes fishing stats. Italy in 2001 had 3448 local units in maritime and lagoon fishing and employed overall 30,103 workers. Table 2.18 lists the main sector LMAs (with more than 250 workers). The top positions, for most employed workers are the LMAs of Marsala (Mazzara del Vallo), Venice (Chioggia), Porto Viro (Po delta) and Trapani. Table 2.19 an attempt has been made to list the various clusters of the main fishing LMAs to identify the main Italian deep sea and lagoon fishing “Districts”. Based on this reconstruction, the main Italian fishing districts are found in Western Sicily (with around 3700 workers), the Venetian Lagoon and the Po Delta area (with almost 3400 workers), and the Bari and Foggia coastal area (with a bit more than 3000 workers). These three local macro-areas represent 1/3 all workers employed in Italy in that sector. Other important Italian maritime “districts” include: the Marche coastal area, Southwestern Sardinia, Naples and its surrounding area, as well as Salerno and its surrounding area.

Tourism “districts” have an even greater impact in numbers of workers employed, and their contribution to GDP. Italy is one of most visited countries in the world, even though it has seen a considerable decline caused by difficulties which began in the early years of the new millennium. France and Spain have become ever sharper competitors, outranking Italy in numbers of tourists visiting from abroad according to the World Tourism Organization.

Tourism remains, nonetheless, one of the pillars of the Italian economy (see Chap. 7) and it is absolutely vital for many local markets (Lazzeretti and Petrillo 2006). The “maps” of the tourism districts are not as many nor as sophisticated as the ones for Industrial Districts, even though there is ample literature and many excellent studies have even paved the way for the identification of local tourism market areas (Capone 2004; Lazzeretti and Capone 2006). The concept of a local tourism system was introduced in Italy with Decree 135/2001. “Maps” of tourism districts were proposed both with reference to schemes based on the specialization of Labor Market Areas within the HoReCa (Hotels, Restaurants and Cafés) sector and with reference to the broader tourism industry supply chain, which not only includes hotel accommodations and related services but also agro-activities such as food and wine tasting, craft-based tourism, recreational and cultural activities, means of transporting people, etc. (Capone 2004; Lazzeretti and Capone 2006).

Based on Istat’s 2001 Census, it is estimated that there are 259 “tourism districts” which represent 37.8 % of the 686 LMAs in which Italy has been geographically divided. Istat defines “tourism” LMAs “on the basis of the territorial concentration of workers in consumer services which must have a coefficient of concentration greater than the national average” (Istat 2005a). Istat’s 259 “tourism” LMAs which include large metropolitan LMAs, have an overall population of 19.8 million inhabitants, equal to 34.8 % of Italy’s population. This Istat figure could be a little overly optimistic, hence it might be better to use more selective “maps” of local tourism systems (Capone 2004).

Table 2.18 The main LMAs in maritime/lagoon fishing and persons employed in local units: 2001

Labour market areas (LMAs)	Persons employed				
	1–9	10–49	50–249	>250	Total
Marsala (Mazzara del Vallo)	540	1410	305		2255
Venice	846	669	298	256	2069
Porto Viro	52	140	350	393	935
Trapani	180	187	449		816
Bisceglie	405	211	163		779
Manfredonia	184	153	398		735
Naples	240	140	290		670
Bari	175	315	144		634
Bagheria	152	62	408		622
Ancona	526	47			573
Oristano	51	326	187		564
Carbonia	85	324	109		518
San Benedetto del Tronto	375	136			511
Taranto	27	95	363		485
Fano	445	37			482
Cagliari	114	230	130		474
Sciacca	384	74			458
Giulianova	316	133			449
Salerno	16	65	96	252	429
Civitanova Marche	395	23			418
Porto Empedocle	399	14			413
Barletta	47	143	215		405
Mesola	104	60	223		387
Gallipoli	4	11	60	304	379
Corigliano Calabro	6	37	56	278	377
Pachino	128	68	168		364
Lecce				350	350
Cesenatico	271	68			339
Palermo	48	288			336
Cervignano del Friuli	312	10			322
Pescara	300	22			322
Orbetello	161	67	78		306
Comacchio	145	160			305
Rome	149	78	52		279
Monopoli	156		119		275
Terralba	8	247			255
Agrigento	92	90	72		254

LMAs with more than 250 persons employed in the sector

Source Compiled by Marco Fortis using data from Istat (2006a)

Table 2.19 A possible aggregation scheme for geographic-areas of LMAs in fisheries. Main maritime and lagoon fishing “districts”: 2001 data

Districts	LMAs included in the districts	Local units	Persons employed in local units
West Sicily	Marsala, Trapani, Sciacca, Partinico	362	3698
Venetian Lagoon and Po Delta	Venice, Porto Viro, Mesola	324	3391
Bari and Foggia Coast	Bisceglie, Manfredonia, Bari, Barletta, Monopoli, Vieste, Foggia	275	3039
Marche Coast	Ancona, San Benedetto del Tronto, Fano, Civitanova Marche	408	1984
South-west Sardinia	Oristano, Carbonia, Cagliari, Pula, Terralba	117	1931
Naples and Salerno area	Naples, Salerno, Torre del Greco, Sorrento, Cava dei Tirreni, Ischia	109	1724
South Apulia	Taranto, Gallipoli, Lecce, Nardò	20	1369
Abruzzo Coast	Giulianova, Pescara, Termoli, Vasto, Ortona	236	1234
Palermo Area	Bagheria, Palermo, Termini Imerese	68	1169
South-west Sicily	Pachino, Siracusa, Catania	107	765
Romagna Coast	Cesenatico, Rimini, Cattolica	197	734
Calabria-Ionian Coast	Crotone, Corigliano Calabro, Cirò Marina	27	717
South Sicily	Agrigento, Porto Empedocle	135	667
North-west Sicily	Lipari, Barcellona Pozzo di Gotto, Sant’Agata di Militello	30	537
Varano Lagoon	Cervignano del Friuli	95	322
Agrigento area	Orbetello	40	306
Comacchio Valleys	Comacchio	47	305
Total		2597	23,892

LMAs with at least 100 persons employed in local units

Source Compiled by Marco Fortis using data from Istat (2006a)

For purely illustrative purposes, let’s consider the selection of the 141 “LMAs specialized in tourism” (LMAST), using the Istat LMA model, but with more selective criteria, whereby LMAs from large municipalities are excluded (Table 2.20). The 141 LMASTs were selected considering 4 distinct categories of LMAs, each characterized by a different combination of the following two parameters: (a) a minimum number of workers in the hotel and related services sector (HoReCa), along the lines already established by previous studies (Capone 2004; Lazeretti and Capone 2006); and (b) a minimum required value for the tourism services coefficient in the various LMAs.²¹ The identified LMATS categories are:

²¹The Coefficient for tourism services for each LMA is: $(LMA_{Ho}/LMA_{tot\text{serv}})/(ITA_{Ho}/ITA_{tot\text{serv}})$, where LMA_{Ho} is the amount employed in hotels and related services for each LMA; $LMA_{tot\text{serv}}$ is the total number employed in services industry for each LMA; ITA_{Ho} is the total number employed in Italian hotels and related services; and $ITA_{tot\text{serv}}$ is the total employed in the Italian services industry.

- LMATS with more than 10,000 workers employed in hotels and related services and with a tourism services coefficient >1
- LMATS employing between 1000 and 9999 workers in hotels and related services and with a tourism services coefficient >1.25
- LMATS employing between 500 and 999 workers in hotels and related services and with a tourism services coefficient >1.5
- LMATS employing between 500 and 999 workers in hotels and related services and with a tourism services coefficient >3

In the first category, there are 141 distinctly “tourism” LMAs where 6.7 million people live, which include about 2.7 million families, and around 207,800 are employed in hotels or related services (which represents about one fourth of all workers in the tourism industry).

Among the 141 classified LMATS there is only one (Padua) with more than 10,000 workers employed in hotels and related services with a tourism services coefficient greater than 1. Important thermal centers like Abano Terme and Montegrotto also belong to the Padua LMA.

There are 69 LMATS that belong to the second category. Among these are many alpine tourism LMAs with very large coefficients of specialization: Trentino-Alto Adige (Badia, Castelrotto, Ortisei, San Candido, Moena, Merano, Vipiteno, Brunico, Bressanone, Bolzano), and also other alpine areas (Bormio, Aosta, Saint Vincent, Domodossola). There are renown resorts (Forio, Amalfi, Arzachena, Capri, Ischia, Vieste-Gargano, Taormina, Orbetello-Argentario, Sorrento, Portoferraio, Cesenatico, Rimini, Viareggio, Sanremo, Olbia, ecc.), thermal mineral springs tourism areas (Montepulciano-Chianciano Terme, Fidenza-Salsomaggiore, Montecatini-Terre, Darfo Boario Terme, Fiuggi), lake tourism areas (Malcesine, Arco, Verbania, Castiglione delle Stiviere-Sirmione, Salò, Sesto Calende), areas dedicated to religious tourism (San Giovanni Rotondo, Assisi) and to art tourism (Siena).

In the third category there are 58 LMATS. Among the most important are areas for alpine tourism (San Leonardo in Passiria, Fiera di Primiero-San Martino di Castrozza, Cortina d’Ampezzo, Courmayeur, Pinzolo-Madonna di Campiglio, Bardonecchia-Sestriere, etc.), for maritime tourism (Porto Azzurro, Tropea, Levanto, Cefalù, La Maddalena, Alghero, etc.), for lake tourism (Limone sul Garda, Menaggio), and for religious and art tourism (Gubbio, Urbino, Orvieto, Cortona).

The fourth and last category consists of 13 smaller LMATS which have significant tourism services coefficients (Peio, Cannobio, Bellagio, etc.).

Interestingly, there are various LMATS in which for every 2–3 families, there is one with at least one family member working in a hotel or related services. This particular record is held by the LMA of Limone sul Garda, followed by the LMAs of Badia, Ortisei, Moena, Castelrotto and Malcesine. There are important tourism areas on Lake Garda and in the Dolomites. In other LMATS, one out of every 4–5 families have at least one family member who is employed in the tourism industry, examples are found in Naturno, San Candido, Arzachena, Capri, Porto Azzurro, Cortina d’Ampezzo, Amalfi, Forio, Courmayeur, San Leonardo in Passiria, Vipiteno,

Table 2.20 Selection of some "tourism" LMAs (excluding LMAs from large metropolitan municipalities): 2001

Labor Market Areas (LMAs)	Persons employed in hotels and related services	% share of persons employed in hotels and related services of the total employed in industry and services	% share of persons employed in hotels and related services of the total employed in services	Coefficient for locating tourism services
<i>Labor market areas with more than 10,000 persons employed in hotels and related services and a coefficient for locating tourism services >1</i>				
Padua	14,741	6.7	11.3	1.2
<i>Labor market areas with 1000-9999 persons employed in hotels and related services and a coefficient for locating tourism services >1.25</i>				
Malcesine	1101	43.6	53.5	5.7
Badia	1532	37.3	52.9	5.6
Castelrotto	1131	34.2	51.7	5.5
Ortisei	1338	29.9	49.4	5.2
Forio	1424	43.3	48.8	5.2
Amalfi	1858	34.8	47.3	5.0
San Candido	1269	28.0	47.1	5.0
Arzachena	1348	29.7	43.7	4.6
Moena	1139	32.5	42.4	4.5
Vieste	1037	28.9	38.1	4.0
Fiuggi	1013	29.5	37.5	4.0
Capri	1082	29.3	36.4	3.8
Ischia	2360	30.5	35.3	3.7
Merano	5572	23.7	34.1	3.6
Montepulciano	1709	22.9	33.5	3.5
Vipiteno	1155	21.2	33.4	3.5
Taormina	2604	26.4	33.4	3.5
Bormio	1291	21.5	33.2	3.5
Sorrento	3513	25.6	33.0	3.5
San Giovanni Rotondo	1162	21.5	30.7	3.2

(continued)

Table 2.20 (continued)

Labor Market Areas (LMAs)	Persons employed in hotels and related services	% share of persons employed in hotels and related services of the total employed in industry and services	% share of persons employed in hotels and related services of the total employed in services	Coefficient for locating tourism services
Portoferraio	1499	23.4	30.4	3.2
Brunico	2082	15.8	27.8	2.9
Bressanone	2394	15.6	26.8	2.8
Saint-Vincent	2140	14.1	26.5	2.8
Finale Ligure	2155	16.9	24.8	2.6
Latisana	2244	14.3	24.4	2.6
Orbetello	1287	16.6	23.8	2.5
Rapallo	2046	17.7	23.8	2.5
Arco	2256	13.9	23.4	2.5
Cattolica	2513	12.2	21.9	2.3
Cesenatico	3682	11.2	20.0	2.1
Pietrasanta	1742	12.1	19.2	2.0
Verbania	1768	11.7	18.8	2.0
Albenga	2047	13.7	18.3	1.9
Rimini	9158	12.4	17.7	1.9
Gemona del Friuli	1507	7.4	17.6	1.9
Cervignano del Friuli	2140	9.4	17.4	1.8
Cecina	1782	10.8	17.2	1.8
Castiglione delle Stiviere	4099	7.9	16.6	1.8
Comacchio	1304	9.0	16.4	1.7
San Donà di Piave	3131	9.2	16.2	1.7
Ventimiglia	1302	11.9	15.7	1.7

(continued)

Table 2.20 (continued)

Labor Market Areas (LMAs)	Persons employed in hotels and related services	% share of persons employed in hotels and related services of the total employed in industry and services	% share of persons employed in hotels and related services of the total employed in services	Coefficient for locating tourism services
Fidenza	2229	8.2	15.6	1.7
Viareggio	3145	10.0	15.6	1.6
Assisi	1449	7.8	15.6	1.6
Poggibonsi	1641	6.9	15.3	1.6
San Remo	1772	11.9	15.3	1.6
Chiavari	2337	9.0	15.2	1.6
Portofuaro	2459	6.3	15.1	1.6
Aosta	2082	9.8	14.9	1.6
Siena	3219	9.5	14.2	1.5
Recanati	1560	4.9	14.2	1.5
Domodossola	1138	7.3	14.0	1.5
Montecatini-Terne	2867	7.9	13.8	1.5
Formia	1509	9.3	13.7	1.5
Massa	1726	8.2	13.6	1.44
Rovereto	1485	6.6	13.6	1.44
Salò	1368	6.0	13.5	1.43
Senigallia	1322	7.1	13.4	1.42
Ravenna	5266	8.6	12.9	1.37
Bolzano	5502	8.6	12.8	1.35
Darfo Boario Terme	1111	6.0	12.7	1.35
Piombino	1201	7.0	12.7	1.35
Giulianova	1799	5.7	12.7	1.34

(continued)

Table 2.20 (continued)

Labor Market Areas (LMAs)	Persons employed in hotels and related services	% share of persons employed in hotels and related services of the total employed in industry and services	% share of persons employed in hotels and related services of the total employed in services	Coefficient for locating tourism services
Belluno	1724	5.3	12.3	1.31
Olbia	1534	8.8	12.1	1.28
Savona	2930	8.7	12.1	1.28
Rieti	1351	6.9	12.0	1.27
Sesto Calende	2018	4.5	12.0	1.27
<i>Labour market areas with 500–999 persons employed in hotels and related services and a coefficient for locating tourism services >1.5</i>				
Limone sul Garda	605	51.3	60.9	6.4
Campo Tures	927	26.3	47.5	5.0
Naturno	707	26.1	47.4	5.0
Porto Azzurro	600	36.9	46.8	4.9
San Leonardo in Passiria	503	22.4	45.6	4.8
Malles Venosta	960	23.7	42.8	4.5
Pula	750	30.1	42.6	4.5
Levanto	694	32.1	40.3	4.3
Muravera	985	26.5	40.1	4.2
Tropea	701	30.2	37.8	4.0
Bleggio Inferiore	599	23.3	37.2	3.9
Bagno di Romagna	530	20.7	35.1	3.7
Toscolano-Maderno	658	21.7	34.6	3.7
Fiera di Primiero	551	22.0	34.5	3.7
Diano Marina	859	25.1	32.7	3.5
Cortina d'Ampezzo	822	22.1	31.8	3.4

(continued)

Table 2.20 (continued)

Labor Market Areas (LMAs)	Persons employed in hotels and related services	% share of persons employed in hotels and related services of the total employed in industry and services	% share of persons employed in hotels and related services of the total employed in services	Coefficient for locating tourism services
Courmayeur	725	20.3	31.4	3.3
Agordo	674	9.6	30.2	3.2
Pinzolo	505	20.4	29.7	3.1
Cefalù	717	21.4	28.6	3.0
Bardonecchia	741	20.9	28.0	3.0
Castel di Sangro	723	18.5	27.5	2.9
Silandro	698	14.7	27.3	2.9
Varallo	532	9.9	26.0	2.7
La Maddalena	526	18.9	25.5	2.7
Menaggio	776	15.4	25.4	2.7
Asiago	530	14.3	24.4	2.6
Tortoli	678	15.6	23.8	2.5
Edolo	678	10.8	23.0	2.4
Firenzuola	632	9.7	21.9	2.3
Egna	872	12.2	20.5	2.2
Lauria	677	12.3	20.1	2.1
Gaggio Montano	821	8.1	20.0	2.1
Cavalese	621	11.5	19.9	2.1
Tolmezzo	974	9.0	19.8	2.1
Capaccio	624	12.8	18.9	2.0
Clusone	794	7.0	18.8	2.0
Alghero	949	13.0	18.8	2.0
Gubbio	858	10.2	18.7	2.0

(continued)

Table 2.20 (continued)

Labor Market Areas (LMAs)	Persons employed in hotels and related services	% share of persons employed in hotels and related services of the total employed in industry and services	% share of persons employed in hotels and related services of the total employed in services	Coefficient for locating tourism services
Otranto	607	10.1	17.4	1.8
Barga	742	6.7	17.4	1.8
Follonica	891	10.7	17.0	1.8
Luino	986	9.7	16.9	1.8
Pineto	750	7.6	16.4	1.7
Taggia	541	11.8	15.8	1.7
Orvieto	906	9.6	15.8	1.7
Sessa Aurunca	995	10.0	15.4	1.6
Pavullo nel Frignano	541	7.1	15.4	1.6
Zogno	587	5.2	15.3	1.6
Feltre	951	5.6	14.9	1.6
Aulla	516	8.9	14.7	1.6
Cortona	663	7.2	14.6	1.5
Soverato	507	9.8	14.4	1.5
Urbino	629	5.4	14.2	1.5
Terracina	729	10.3	14.1	1.5
Ostuni	668	9.4	14.0	1.5
Morbegno	926	5.7	14.0	1.5
Partinico	544	9.0	13.8	1.5
<i>Labour market areas with 250-499 persons employed in hotels and community service activities and a coefficient of localization of tourism services >3</i>				
Nova Ponente	498	33.3	53.2	5.6
Peio	406	24.4	37.8	4.0

(continued)

Table 2.20 (continued)

Labor Market Areas (LMAs)	Persons employed in hotels and related services	% share of persons employed in hotels and related services of the total employed in industry and services	% share of persons employed in hotels and related services of the total employed in services	Coefficient for locating tourism services
Chiesa in Valmalenco	250	18.3	36.8	3.9
Orosei	434	18.5	36.0	3.8
Cannobio	295	25.0	35.2	3.7
Bellagio	419	18.5	35.1	3.7
San Teodoro	483	22.0	34.3	3.6
Santa Teresa Gallura	355	23.6	33.5	3.5
Castagneto Carducci	487	22.0	32.6	3.4
San Quirico d'Orcia	333	16.8	31.8	3.4
Pievepelago	255	15.5	29.4	3.1
Auronzo di Cadore	456	12.9	29.0	3.1
Fanano	286	14.4	28.1	3.0

Excluding LMAs of large municipalities whose main municipality has a resident population of at least 250,000 persons (Turin, Genoa, Milan, Venice, Bologna, Florence, Rome, Naples, Bari, Palermo, Catania, Verona and Messina)

Source Compiled by Marco Fortis using data from Istat (2006a)

Merano and Bormio. There are other LMATS where one family out of 6–7 have a family member employed in hotels or related services like in Brunico, Fiuggi, Pinzolo-Madonna di Campiglio, Montepulciano-Chianciano, Ischia, Portoferraio, Levanto, Bardonecchia-Sestriere, etc. Naturally, there are many other services besides hotels and related services that are connected to tourism. Consider the overall advantages of beach facilities, ski lifts, laundry services in hotels, beauty salons, ski instructors, etc. Thus, the number of families directly or indirectly tied to the tourism industry in LMASTs is much greater. Tourism, for Italy and its many local communities, remains fundamental and strategic.

2.7 The Role of Industrial Districts in Italian Exports

The role of Italian IDs, especially the “Made in Italy” specialization sectors, in the Italian economy has been investigated above. But, how much do IDs contribute to Italian exports? The answer once again depends on the definition used to identify an ID, which impacts the number of identified IDs. As has already been stated, Istat estimates that Industrial Districts represent 46 % of total Italian exports (Table 2.4).

An aspect which up to now has not been analyzed in depth is the precise share of Italian Industrial Districts in world exports. The author of this work has discussed the matter in various other publications (Fortis 2000, pp. 25–56). Istat also published a booklet on LMA exports (Istat 2002), with an attempt at estimating the export figures of some products, but the results were hampered by the high degree of pooled products in single categories.

The most reliable estimate of the Italian IDs’ share of world trade can be elaborated from export data by province. While the export data by province is not very recent (Istat data from 1999), it has a high degree of detail per listed product and it can thus still be considered representative. Table 2.21 provides the results of the elaborations and shows interesting estimates of world exports by some of the provinces with industrial districts of the main “Made in Italy” specialized products.

2.7.1 *Leadership in Global Trade of Italian Industrial Districts*

It is an ascertained fact that Italian Industrial Districts have been able to conquer, in their respective fields, global market shares, equal if not greater than, the ones acquired by the largest foreign multinational groups. Table 2.21 provides examples of some large IDs (for example: tiles from Emilia, and furniture from Brianza, Lombardy, the Triveneto area (Northeast Italy) and Bari-Matera (Apulia), and niche markets (bicycle saddles from the Vicenza area or leather and footwear machinery from the Vigeveno area).

The example provided in Table 2.21 is for cooker hoods from the Marche Region located in Fabriano, which is also the historical headquarters of the Merloni Group. The development of the local hub for cooker hoods is relatively independent from the one of the renowned leader in appliances and thermo-sanitary manufacturing. In fact, the cooker hoods district began in the post-WWII period thanks to the initiative of a couple of pioneer firms, which in time developed into large companies that have now witnessed the birth of other medium-large firms. The expansion of IDs was particularly impressive in the late nineties. Exports of cooker hoods from the Ancona province in 1999 represented 55 % of world exports in this category. This figure is notably greater than for the other two major exporters: Germany and Spain.

Another example of Italian world leadership is the Cadore (Veneto Region) ID specialized in eyewear frames. Next are half a dozen large companies (including a leading manufacturer of spectacle cases) which have acquired significant market shares and the product licenses of the most prominent global fashion designers. There are numerous SMEs that sprung from spillovers, which operate in IDs (from the production of small metal components to surface treatment). Increasing competition from Asia, however, has seriously affected smaller companies, while larger groups continue to operate with remarkable success. In 1999, the export share of frames and spectacles from the Belluno and Padua provinces was 22 % of global trade in that sector.

Noteworthy, also is the world market share of the Rimini and Pesaro-Urbino provinces in woodcarving machinery exports, estimated at almost 9 %. Two large groups mainly operate in this sector (one in Rimini, the other in Pesaro) as well as a few smaller companies. Table 2.21 illustrates 6 large Italian IDs in the wood furniture sector: Piave and Livenza (Treviso and Pordenone provinces), Manzano-S. Giovanni al Natisone (Udine), Brianza (Milan and Como), Pesaro-Urbino and Santeramo in Colle-Altamura-Matera (Bari-Matera).

The provinces of Treviso-Pordenone, Milan-Como, Udine and Pesaro-Urbino in 1999 together made up 11 % of world exports in furniture, while Udine and Bari-Matera made up almost 8 % of world exports in chairs and sofas. These IDs have numerous SMEs and even some privately owned larger groups.

Noteworthy export figures are the Bologna, Modena and Parma provinces for packing machinery: in 1999 the three provinces combined made up 12 % of the world exports in that sector. Many SMEs are located in Bologna and the surrounding area, as well as various large family-run groups.

Another significant example of Italian leadership is in the traditional ceramic tile district centered around Sassuolo and Fiorano Modenese, which have a world export quota of 41 %. Due to the capital intensive nature of this sector, there are large companies which operate in this ID.

The hosiery ID of Castel Goffredo is the undisputed world leader in its sector and represents approximately 16 % of the global market. Here too we find both large firms, numerous SMEs, as well as a few medium-large twisted yarn suppliers. The two main districts for jewelry also hold a significant share of world exports:

Table 2.21 Examples of the importance of certain products from Italian Industrial Districts in world exports: 1999 data

Provinces including districts	Combined nomenclature codes	Specializations	World exports (million \$)	Italian exports (million \$)	% share of Italy's world exports	Estimated % share of world exports of provinces with industrial districts
Ancona (Fabriano)	841,460	Cooker hoods	616	400	65.0	55.0
Belluno (Cadore) and Padua	9003 and 9004	Frames and glasses	3778	1074	28.4	22.2
Vicenza	711,319	Jewelry	15,769	4391	27.8	10.8
Arezzo	711,319	Jewelry	15,769	4391	27.8	8.9
Rimini and Pesaro	8465	Machinery for processing of wood	3878	1095	28.2	8.9
Treviso and Pordenone (Quartier del Piave and Livenza)	9403	Furniture and kitchen furniture	26,676	4802	18.0	4.6
Milan and Como (Brianza)	9403	Furniture and kitchen furniture	26,676	4802	18.0	3.1
Pesaro and Urbino	9403	Furniture and kitchen furniture	26,676	4802	18.0	1.6
Udine	9403	Furniture and kitchen furniture	26,676	4802	18.0	1.6
Bari and Matera	9401	Chairs and seats	19,505	3503	18.0	4.7
Udine (Manzano)	9401	Chairs and seats	19,505	3503	18.0	3.0
Bologna, Parma and Modena	8422	Machinery for packing and bottling	10,917	2921	26.8	11.7
Modena (Sassuolo), Reggio Emilia and Bologna	6907 and 6908	Ceramic tiles	6907	3315	48.0	40.6

(continued)

Table 2.21 (continued)

Provinces including districts	Combined nomenclature codes	Specializations	World exports (million \$)	Italian exports (million \$)	% share of Italy's world exports	Estimated % share of world exports of provinces with industrial districts
Mantova (Castel Goffredo) and Brescia	6115	Hosiery	3637	934	25.7	16.2
Novara, Vercelli and Verbania (Cusio and Valsesia)	8481	Taps and valves	20,932	3222	15.4	4.6
Brescia (Lumezzane)	8481	Taps and valves	20,932	3222	15.4	2.9
Vicenza (Rossano Veneto), Treviso and Padua	871,495	Bike saddles	131	59	45.1	41.1
Milan and Varese	8477	Machinery for processing of rubber and plastic materials	10,099	1461	14.5	5.8
Vicenza (Arzignano) and Verona	4104	Bovine tanned leather	10,076	2318	23.0	12.8
Pisa (Santa Croce sull'Arno)	4104	Bovine tanned leather	10,076	2318	23.0	4.0
Avellino (Solofra)	4105	Ovine tanned leather	1025	319	31.1	26.0
Pavia (Vigevano)	8453	Machinery for processing leather and footwear	671	336	50.0	14.5

Source Compiled by Marco Fortis using data from UN Comtrade (2006) and Istat (2006a, b)

Vicenza 10.8 % and Arezzo 8.9 %. Italy in 1999 totaled 27.8 % of world exports in this sector.

It is more difficult to measure the world market share of the Cusiano-Valsesiano and Lumezzane IDs specialized in brass and bronze taps and valves. Nonetheless it is estimated that they represent 7.5 % of the world market when including steal valves. The figure would probably double if merely considering the district's two specializations (chromed brass sanitation taps, and brass and bronze valves for civilian applications). The Cusiano-Valsesiano ID is the largest, with a couple of big firms and about 20 medium-size niche leader firms, in addition to several small companies. In the Lumezzane ID we also find some particularly relevant large and medium-size companies. The small ID of Vicenza-Padua is another undisputable leader in bicycle saddles with 41 % of world exports. This ID is the home of some world renown medium-size firms.

The Solofra ID is also worth mentioning. It is renowned for its tanned ovine leather with an exports share of 26 %. There are also two large IDs specialized in bovine leather: Arzignano (Vicenza) and S. Croce sull'Arno (Pisa), which combined represent 17 % of world exports. Many large family-run businesses, especially in Vicenza, operate in these two IDs.

Lastly, it must be mentioned, without the pretense of having provided in this brief section an overview of the Italian ID leaders in world trade, the two IDs of Milan and Varese which alone represent almost 6 % of world exports in the processing of rubber and plastics machinery, while Vigevano (Pavia) represents 15 % of world exports in machinery for the leather and footwear manufacturing sector.

2.7.2 Italian ID Export Trends: 1991–2005

Fondazione Edison has elaborated an Export Index of the major Italian IDs using Istat data on exports by province. The Edison Index covers 101 IDs and is subdivided in 5 sub-indexes: Food and wine (17 districts), Fashion and cosmetics (31), Furniture and ceramic tiles (16), Fabricated metal products, machinery and transport equipment (30) and High-tech (7).²² The Districts in the Edison Index cover only a portion of the total produced in Italy. In 2004, their exports amounted to €61.8 billion which is equivalent to 21.7 % of total Italian exports and 22.6 % of manufacturing exports.

The Food and wine Index represents approximately 7 % of exports by the districts considered (2004 data) and includes, important areas for the production of cold cuts and cured meats (Parma and Modena), canned and preserved fruits and

²²In order to elaborate these indexes, cosmetics and luxury cars (Ferrari) have been respectively extrapolated from "Fashion and cosmetics" and "Fabricated metal products, machinery and transport equipment" and included in the High-tech Index.

vegetables (Salerno), olive oil (Florence and Lucca), cheeses and various vineyard districts (including Verona, Cuneo, Florence, Siena, Asti).

The Fashion and cosmetics Index represents a little more than 40 % of the sector considered and it is the most important. It includes numerous IDs in textiles-wearing apparel and related accessories (for example Prato, Biella, Varese, Como), various districts known for leather-footwear-leather goods (for example: Fermano-Maceratese, Arzignano, Santa Croce sull'Arno), the eyewear district of Cadore (Belluno) and major jewelry hubs (Vicenza and Arezzo).

The Furniture and ceramic tiles Index represents about 15 % of the exports of the IDs covered and includes major furniture districts (from Brianza to Murgia, and from Livenza to Pesaro-Urbino), the ceramic tiles hub of Sassuolo (Modena), the major Districts for ornamental stones (Carrara and Verona), and the District for ceramic sanitary items from Civita Castellana (Viterbo).

The Fabricated metal products, machinery and transport equipment Index is second only to the Fashion and cosmetics Index, and represents 29.6 % of exports for the IDs covered. Included are a variety of specialization districts in machinery and equipment (including taps-valves from Vercelli-Novara and packaging machinery from Bologna), some important hubs for appliances (cooker hoods from Fabriano and stainless steel from Treviso area), specialized areas in metal products (Lecco), rubber and plastics (including Alessandria and Varese), and paper items (Lucca).

Last, is the High-tech Index; it represents a little less than 8 % of exports for the IDs analyzed. It covers aerospace (Varese), and electronics (Catania). This index also includes the luxury cars hub (Ferrari and Maserati). This last sector cannot be strictly defined as an industrial district, but it is nonetheless included because it undoubtedly represents among the best of the “Made in Italy” products, painstakingly building its reputation over the years through the unceasing work of Italian Industrial Districts.

The export trend of IDs from 1991 to 2004–2005 can be seen in Table 2.22 and in Figs. 2.1, 2.2, 2.3, 2.4, 2.5 and 2.6. Table 2.22 subdivides 1991–2004 in two sub-periods: from 1991 to 2001 and from 2001 to 2004. The year 2001 was a critical year: the September 11th tragedy, Europe (an important export area for Italy) entered a recession and China joined the WTO—an event that would accelerate and amplify the impact of an already existing asymmetrical competition from Beijing on many “Made in Italy” products, resulting in a loss of world market shares by certain Italian companies exporting in a number of the areas mentioned above.

It is important to note that in the first period, that is from 1991 to 2001, ID exports grew overall by 169 %. This very positive dynamic was divided as follows: a 142 % increase for Fashion and cosmetics, and a startling 352 % increase for High-tech. But, after 2001 the situation changed drastically. From 2001 to 2004, mainly caused by increased Chinese asymmetrical competition, exports in the Fashion and cosmetics districts decreased by 13 % (more than €3.7 billion) and in the Furniture and ceramic tiles districts by 5.9 % (€0.6 billion). On a positive note, there was an increase, though not as strong as before, of exports in Fabricated metal

Table 2.22 Italy's export trends of the 101 major Industrial Districts: Edison index: 1991–2004 (euros)

Sector	1991	2001	2004	1991–2001		2001–2004		1991–2004	
				Δ	% change	Δ	% change	Δ	% change
Fashion and cosmetics (31 districts)	11,918,931,160	28,881,862,122	25,124,957,482	16,962,930,962	142.3	-3,756,904,640	-13.0	13,206,026,322	110.8
Furniture and ceramic tiles (16 districts)	3,652,032,952	9,723,448,619	9,151,967,523	6,071,415,667	166.2	-571,481,096	-5.9	5,499,934,571	150.6
Fabricated metal products, machinery and transport equipment (30 districts)	5,766,407,474	16,542,052,367	18,292,712,850	10,775,644,893	186.9	1,750,660,483	10.6	12,526,305,376	217.2
High-tech (7 districts)	911,394,745	4,117,808,439	4,906,463,208	3,206,413,694	351.8	788,654,769	19.2	3,995,068,463	438.3
Food and wine (17 districts)	1,167,308,811	3,782,097,135	4,381,047,320	2,614,788,324	224.0	598,950,185	15.8	3,213,738,509	275.3
Total (101 districts)	23,416,075,142	63,047,268,682	61,857,148,383	39,631,193,540	169.2	-1,190,120,299	-1.9	38,441,073,241	164.2

Source Compiled by Marco Fortis using data from Istat (2006b)

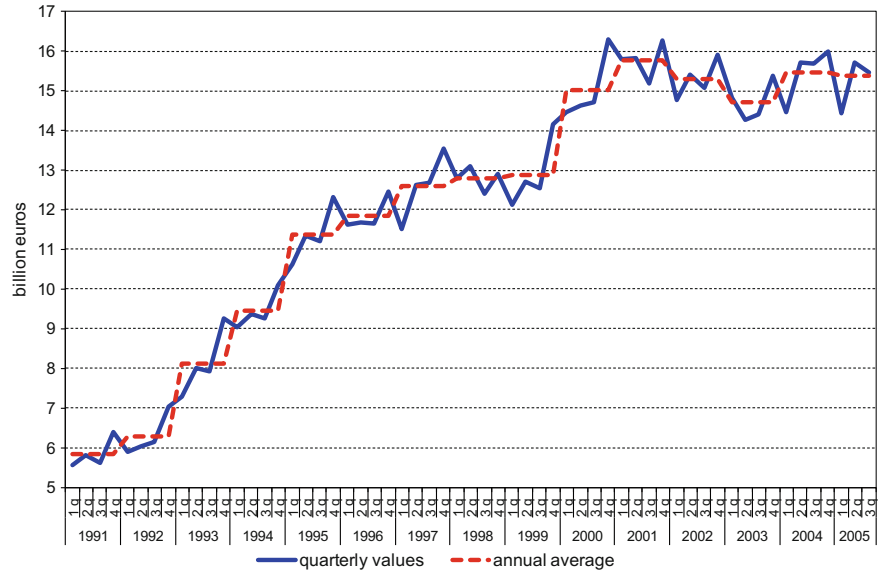


Fig. 2.1 Total export trends of the 101 main Italian manufacturing districts (1991–2005). Edison Index: general. *Source* compiled by Fondazione Edison using data from Istat (2006b)

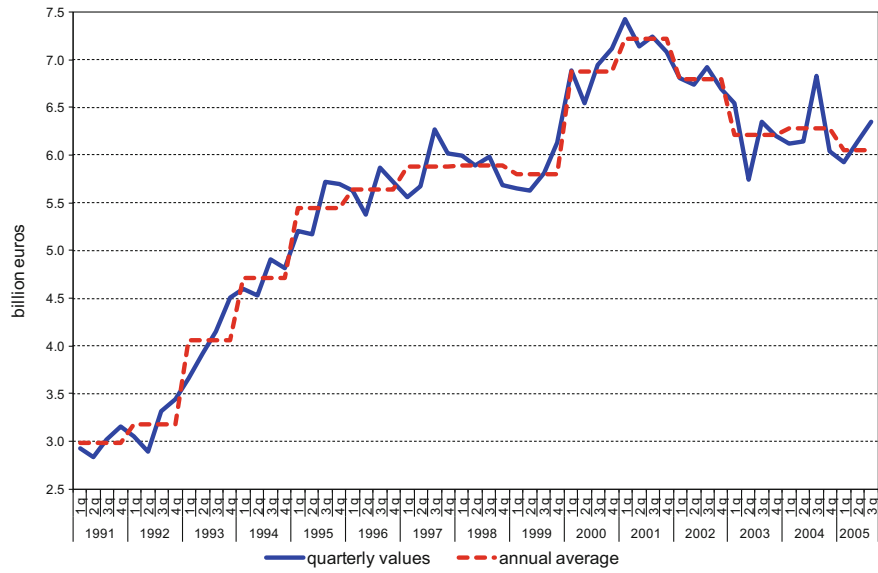


Fig. 2.2 Export trends of the 31 “Fashion and cosmetics” manufacturing districts (1991–2005). Edison Index: “Fashion and cosmetics”. *Source* Compiled by Fondazione Edison using data from Istat (2006b)

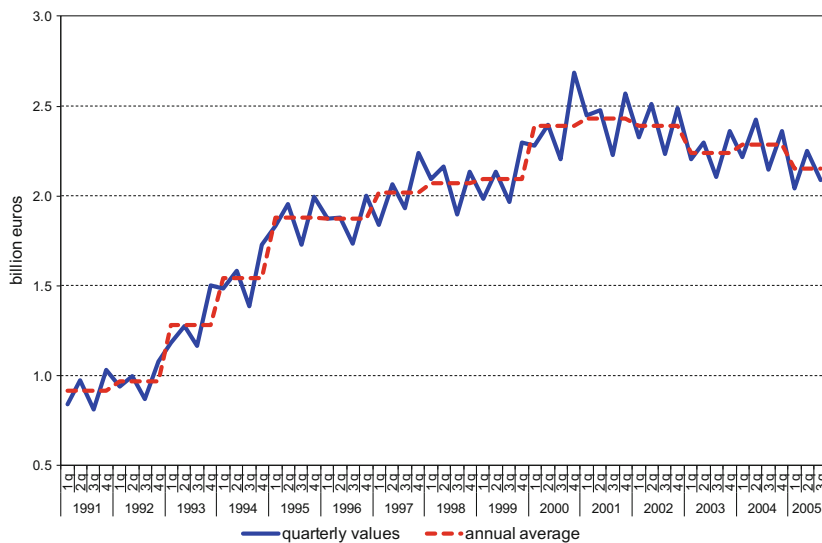


Fig. 2.3 Export trends of the 16 “Furniture and ceramic tiles” manufacturing districts (1991–2005). Edison Index: “Furniture and ceramic tiles”. *Source* Compiled by Fondazione Edison using data from Istat (2006b)

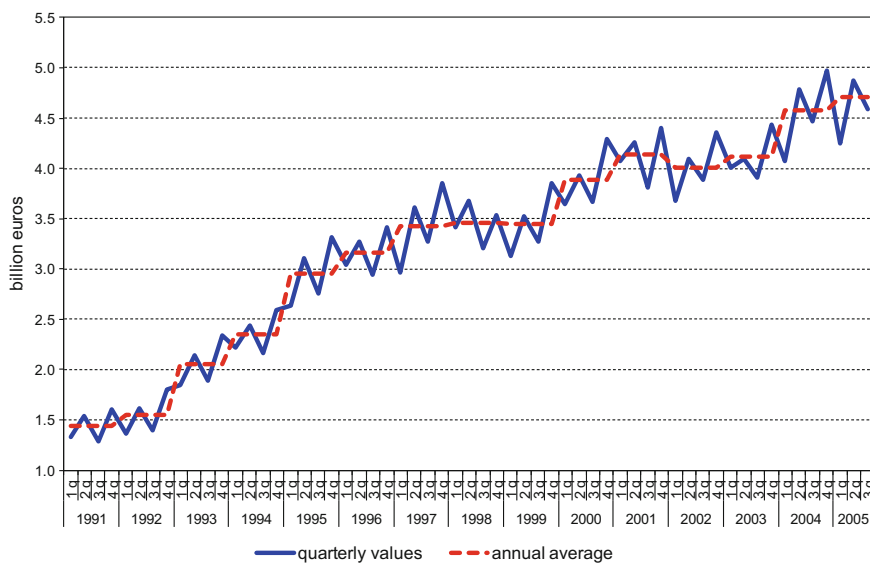


Fig. 2.4 Export trends of the 30 “Fabricated metal products, machinery and transport equipment” manufacturing districts (1991–2005). Edison Index: “Fabricated metal products, machinery and transport equipment”. *Source* compiled by Fondazione Edison using data from Istat (2006b)

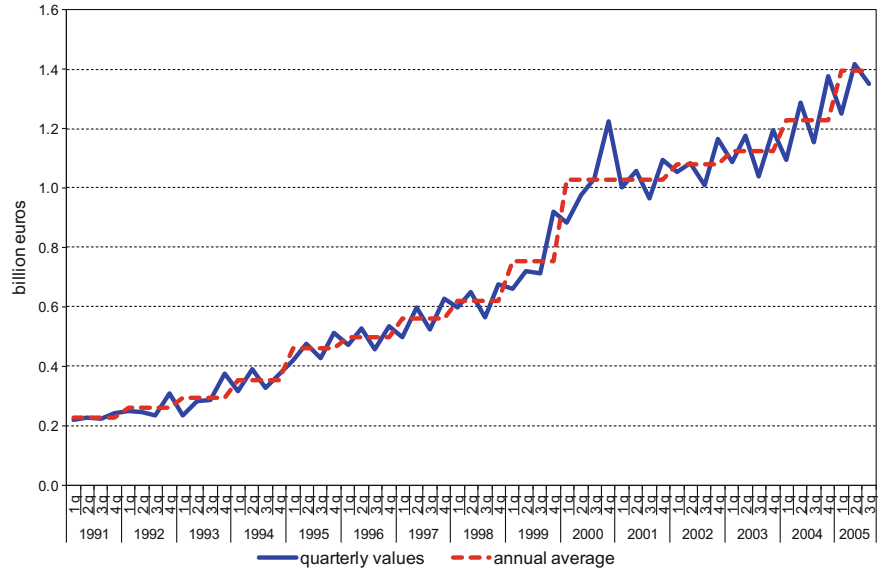


Fig. 2.5 Export trends of the 7 “High-tech” manufacturing districts (1991–2005). Edison Index: “High-tech”. *Source* compiled by Fondazione Edison using data from Istat (2006b)

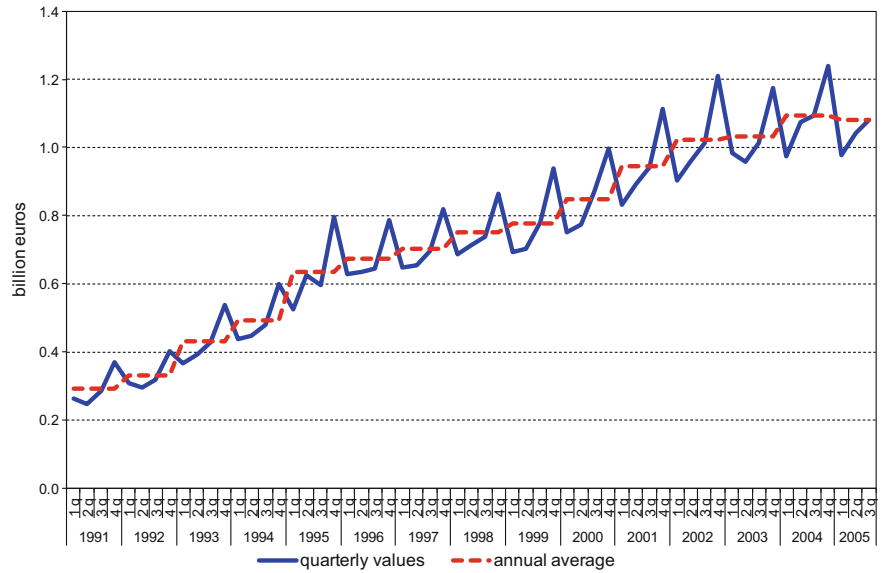


Fig. 2.6 Export trends of the 17 “Food and wine” manufacturing districts (1991–2005). Edison Index: “Food and wine”. *Source* compiled by Fondazione Edison using data from Istat (2006b)

products, machinery and transport equipment and in other sectors such as Food and wine. High-tech districts saw even greater positive trends. Therefore, even if exporting became more difficult, not all districts were affected in the same way by the changes and shifts which recently emerged in world markets. In fact, there are even some IDs that have managed to grow. However, the overall negative trend in Districts specialized in Fashion and cosmetics products was not sufficiently compensated by the positive trends in districts specialized in machinery, High-tech and food. The former saw an overall 1.9 % decrease in district exports between 2001 and 2004 and sluggish growth in 2005.

As can be seen from Fig. 2.1, 2003 was the worst year overall for Italian District exports. In 2004, some sectors showed signs of recovery; this trend unfortunately did not continue in the first three quarters of 2005. In fact, in 2005 Fashion and cosmetics (Fig. 2.2) continued to experience difficulty in exports, while Furniture and ceramic tiles, which had seen a good upturn in exports in 2004, dropped again in 2005 especially in the furniture sector (Fig. 2.3). This is also partially due to a shift of production abroad, especially in the sofas sector. These trends have had a negative effect on the general Export Index for Districts which nonetheless has seen positive export growth since 2003. Districts specialized in machinery (Fig. 2.4), high tech (Fig. 2.5) and food (Fig. 2.6) have also seen an overall stable trend.

From this quite complex and articulated overview, it is evident that one cannot talk of a generalized crisis in Italian industrial district exports. The effect of globalization on exports can be divided in three categories. The first regards those districts specialized in goods for personal care and household goods—their growth is affected by the evolution of asymmetrical competition from China. The second category is districts specialized in machinery—in paper, rubber-plastics—here there is less asymmetrical competition from Asian countries, even though there are some categories which suffer (for example household goods and some plastics). It is comforting, however, that exports in districts specialized in machinery (for example textiles machinery or machinery for plastics and utensils) have even grown in exports towards Asian countries (of course with highs and lows). Lastly, the third category is the food sector which is more stable and less sensitive to competitive shifts induced by globalization.

While the scenario depicted points to some critical elements in Italian export trends (not only at the district level), it does not mean that a catastrophic view should be adopted as proposed by certain foreign newspapers. Even though the Italian economic situation is difficult, its exports seem to be doing better than in many other countries. Regarding world trade, if one looks at the long-run data, one can observe that, during these past years, advanced nations have lost ground, while Chinese exports have grown intensely. Italy has not done worse than many other major OECD countries. In fact, it is among those economies that have been able to hold up well. This is true also for Italy's overall balance of trade. In 1996 Italy ranked third worldwide, after Germany and Japan, for its positive export balance of trade, while in 2004–2005 it had a deficit. However, the drop was mainly due to the deterioration of the balance of trade in energy due to the steep increase in oil prices. The foreign trade balance of manufactured products, to which industrial districts

contributed significantly, remained a surplus both in 2004 and in 2005, even though it was not significant enough to compensate for the mammoth “energy bill”.

Italy—with its districts, its SMEs, its traditional sectors—at times to quickly considered “useless”—has certainly had serious growth problems and feels the negative effects of increasingly stronger asymmetrical Asian competition (Fortis and Quadrio Curzio 2003). However, from the results of the period considered, there is trade balance surplus in exports of around €85 billion in the 4Fs (to which industrial districts give a significant contribution). The overall negative trade balance is due to the energy, automotive, chemical-pharmaceutical and electronic sectors, but, the contraction is nonetheless acceptable if compared to the exports trade balance of other advanced countries.

2.8 Success Factors and Challenges of the Italian Industrial Districts

To try to gain an accurate understanding of the future which awaits Italian Industrial Districts, one must go back in history and try to understand which factors made them successful in the past and what negative shifts have taken place more recently. Given the impact of the recent changes, it is important to ask if in the future, the Italian economy will be able to count on its traditional strengths, typical of industrial districts, that is: creativity, innovation, the right mix of, on the one hand a push for excellence, and on the other hand, the necessary flexibility and agility typical of smaller firms.

It must be noted that, while some Industrial Districts, especially textiles, have deep historical roots, other districts have a more recent past (post-WW II), when an increasing degree of specialized craftsmanship, especially in North and Central Italy, made the jump to manufacturing on a vast scale. IDs, at least up to 2001, were a great success story. A story, which obviously cannot be recounted in full detail in this work. A few generalizations, however, can be given, beginning from the phase of accelerated growth of Italian Industrial Districts.

2.8.1 The Boom Phase of Industrial Districts: 1966–2001

The introduction on a vast scale of the Italian District phenomenon can be placed right at the end of “the Italian economic miracle”. The postwar reconstruction and the “boom” years from 1958 to 1963 were the driving force behind the industrialization of some craft industries and the proliferation of Industrial Districts. But, after the recession of 1964–65, and sluggish growth, the limited domestic market

was no longer sufficient for guaranteeing firms in districts an adequate outlet to guarantee growth and thus profits. It was quite natural for manufacturers of “Made in Italy” products to seek broader horizons: firms which belonged to IDs learned to measure up against their foreign aggressive competitors and began selling increasingly abroad. Broad scale exports of specialized products from Industrial Districts, including footwear, furniture, ceramic tiles, jewelry, eyewear, taps, etc., exploded in the second half of the 60s.

The success stories of some of the major IDs have already been described above. As already stated, an Industrial District is a place, often “isolated” geographically or decentralized, characterized by a strong cultural, social, civil identity: (a) where extraordinary know-how is especially concentrated in the manufacturing sector; (b) with highly qualified and trained personnel and impressive spillovers; (c) where firms are mainly small and medium-size, even if they tend to progressively emerge as district leaders (and in some cases these leaders have the role of guiding, or pulling along other companies); (d) where there is a very strong competitive natural selection mechanism, which picks out the best and most innovative firms all along the supply chain; (e) where there is also a tendency for firms, within the Industrial District, to cooperate on common problems (for example logistics, electricity supply, etc.).

Already in the 60s, companies from IDs sought to increase profits by exporting their products “in rough international waters”, while large Italian public and private firms continued to focus on the domestic market as a “safe heaven”. Competition forced companies to become increasingly efficient (modernizing the more traditional sectors), improve the quality of their products, explore new frontiers, and focus on ingenious industrial design innovations to improve product functionality.

From a broader and more comprehensive perspective, the Italian IDs over time became a formidable territorial production machine, gaining advantage from “agglomerated economies”. Many specialized workers from IDs branched out and became entrepreneurs. Firms, prevalently small or medium-size, were slimmer and more efficient, and could adapt more rapidly to change. Unemployment in IDs was almost nonexistent. In fact, in the 70s, social tensions were reduced to a minimum, while in large industrial cities they were difficult years riddled with trade union clashes, and acts of terrorism.

It is within this context, almost spontaneously and outside of any preordained industrial policy, that the “Made in Italy” miracle was born. This miracle was in large part “built” by Industrial Districts. While the Italian mass media prevalently covered other aspects of the economy, and the economic debate was characterized by the need to identify in which sectors Italy should specialize, the chemical industry or electronics, subsidies continued to flow to state-led industries laying the ground for an inevitable weakening of the structure of large industry while increasing public debt. The local economies of districts and provinces were not part of the debate, they had already decided what to do: privilege international trade, and specialize in fashion, furniture, food, and light industry, through small and medium-sized industries, using the effective organization of Industrial Districts to create new, dynamic regional areas, i.e. the Northeast and the Adriatic coast.

The 80s and especially the 90s were years in which the ID model and “Made in Italy” products experienced maximum growth. Italy became a top notch world actor in industrial manufacturing with an extremely favorable balance of trade. This happened without a relevant number of large companies (as opposed to other industrialized nations), and with a marginal presence in high-tech sectors in which the more industrialized countries were extremely present. Furthermore, Italian firms also had to face an uphill battle against a disadvantaged “national system” with the most expensive energy costs in all of Europe, an increasingly congested transportation network and other major infrastructure inefficiencies, a heavy bureaucracy creating impediments for companies, and a practically inflexible labor market, etc. For these reasons, one can truly speak in terms of “miracle” when considering IDs and “Made in Italy” products. It was a phenomenon that the entire world admired and studied and it certainly did not depend on the devaluation of the Italian lira as some have sardonically stated.

2.8.2 *Problems or Stimulating Challenges?*

In the 90s, after three decades of fabulous and unhindered growth, IDs found themselves having to face new problems. In some sectors of lesser added value, for example fashion, competition began to be felt from Asian countries such as: Taiwan, South Korea, Turkey, India, and especially more recently China. After 2001, the year in which China became a member of the World Trade Organization, the situation worsened. It became immediately clear that the Asian giant, with its strong communist-state driven policy supporting national industry, would become a historically unprecedented competitor, capable of engaging in massive asymmetrical competition, which would impact both advanced and developing nations (an emblematic example is the crash of textiles exports from Bangladesh). The traditional “Made in Italy” sectors and their industrial districts were among the worst hit by asymmetrical competition, to which must be added the more general phenomenon of Chinese counterfeits of Italian products.²³

To reduce production costs in labor intensive sectors, some IDs experimented with relocation already in the 90s; for example, numerous firms from the Triveneto area (Northeast Italy) migrated to Eastern Europe. Relocation, while not a massive phenomenon as of yet, does pose for the Industrial District the risk of losing its unity, causing a dangerous dispersion of its precious long-standing know-how accumulated over time, and even of a possible structural crisis in its “spillover” activities.²⁴

²³Chinese companies do not simply imitate Italian made products, as some even in Italy erroneously sustain; they are in fact systematically counterfeiting all brands and models produced by Italian companies. Ample proof of this has been provided in various works (Fortis 2005a, c).

²⁴There are two types of relocations: (a) prevalently “defensive”—taking advantage of lower production costs in other countries (generally in developing or emerging countries); or,

The “isolation” factor, which initially created cohesion in the industrial district’s community, can become a handicap over time, due to the growth in size and number of companies in the manufacturing chain. Costs and time for delivering products also increase due to bad infrastructure connections (roads and railways), which hamper the industrial district’s products reaching ports and large urban areas. Over the years, the geographic borders of IDs have become increasingly strained as production has increased. IDs today produce millions of square meters of textiles, processed tanned leather, tiles, millions of pairs of footwear and hosiery, taps, valves, knobs, hardware tools, etc. Environmental problems as a consequence increase requiring further investments which generate more costs. There has also been a decrease in specialized workers, while immigrants are employed in less desirable jobs. At the same time, the communities of immigrants and non-EU members (consider the striking example of the Chinese community living in Prato) have created problems until then unknown for industrial districts. According to some scholars, the drive to become entrepreneurs, typical of the population in IDs, is no longer prevalent. This is in part due to a better standard of living and also a lack of career drive in the younger generations compared to their fathers and grandfathers. This aspect has been identified as one of the causes of decreasing growth in Northeast Italy (Rullani 2000; Marini 2003). In addition to these factors, is the crisis among the middlemen who traditionally worked with industrial districts

(Footnote 24 continued)

(b) prevalently “offensive”—opening new production units in other countries to take advantage of lower production costs, and also move “physically” closer to the consumer markets (generally strongly expanding economies) to sell their products more easily. The latter type of relocation is undoubtedly a healthy form of globalization which should be encouraged, while being aware that the typical “Made in Italy” Industrial Districts are composed of mostly SMEs and there are only a few which have the sufficient “critical mass” to relocate their production abroad, especially in distant Asia.

The relocation of some Italian industrial districts, especially in the Northeast in the 90s, to countries like Romania or other Eastern European nations which offered low production costs in textiles-wearing apparel or footwear, was mainly for “defensive” reasons. The competitive advantage offered by East European countries are now no longer sufficient to compete against the low production costs in China. In fact, some are beginning to wonder if relocating to China should not be seriously considered. Those SMEs in IDs in the Northeast that relocated to countries like Romania, Slovenia, or Slovakia did not find insurmountable problems. However, relocating as far away as China could certainly bring about greater risks and unknowns.

The author believes in general that a well-balanced and moderate relocation could be positive for Italian industrial districts (or at least for some of them), allowing them to reduce, in the short run, production costs especially for less profitable companies. However, an evaluation over the long run must be made weighing also the disadvantages for the industrial districts. A few effects to consider are the progressive impoverishment of local spillovers (SMEs which do not have the infrastructure to relocate and follow the larger companies could lead to a structural crisis); the progressive loss of know-how and qualified personnel; and the risk of transferring the manufacturing know-how to newly emerging countries which could easily become even more formidable competitors. Some of these risks have been underlined recently in studies that analyzed the competitiveness of companies which relocated to Romania. On this see Crestanello and Dalla Libera (2003) and Crestanello and Tattara (2005).

for foreign clients whom today increasingly buy directly in Eastern Europe or China.

At the end of the 90s, the price of crude oil, (crucial for a country like Italy, whose production of electricity depends for 2/3 on hydrocarbons) began to increase significantly. It had been around \$20 per barrel for a long time, but when it increased, it had the domino effect of also pushing up the price of natural gas. Production costs, thus, went up and Italian companies increasingly found themselves at a competitive disadvantage with countries less dependent on oil and gas (which used nuclear power and coal instead). The situation became particularly critical from 2004 to 2006, when the price of oil jumped to new record highs of over \$70 a barrel, with particularly negative consequences for the energy intensive “Made in Italy” sectors—consider for example the leader in ceramic tiles in the industrial district of the Reggio Emilia area.

Lastly, Italy adopted the euro and consequently it could no longer undertake its periodic devaluations of the Italian lira, which over the previous decades had acted as a partial buffer for the numerous structural and bureaucratic inefficiencies firms had to face. Eliminating devaluations would not have been in and of itself an insurmountable problem, if it had not been that Italy’s main competitor, China, had decided to significantly devalue its currency (the Chinese yuan is artificially tied to the US dollar) which resulted in even further difficulties for Italian products sold in euros.

It has been stated that in this new context, dominated by globalization and Chinese asymmetrical competition, factors which were once characteristic strengths of IDs (the small size of firms, strong roots in the local community, mainly exports oriented, little investment in production abroad), were turning into structural weaknesses of the Italian manufacturing system. During the ongoing world financial and economic crisis especially in Europe and Italy, but even earlier from 2001 to 2005, it has been argued that problems in Italy were caused by two shortcomings of the specialization model: the lack of a significant number of large firms, and a weak presence in fast-growth high-tech sectors.

This line of thought, which does raise some important questions, has one fundamental flaw. It is not the fault of Industrial Districts and “Made in Italy” products, if large firms in Italy find themselves in a significant crisis, nor are they the cause of Italy’s marginal presence in high-tech sectors. At the basis of the weaknesses of the Italian system of production are historical roots and motivations that cannot be analyzed here, but which have little to do with Industrial Districts or SMEs. Rather it is a positive fact that the “Made in Italy” miracle, which generated the larger part of wealth and know-how, made it possible for Italy to enter the Eurozone at a time when many firms were closing in multiple sectors.

It is, nonetheless, undeniable, as the Italian Industry Confederation, Confindustria, has underlined on numerous occasions, that Italy must seriously tackle the problem of sluggish growth. It is quite probable that Industrial Districts and small and medium-size enterprises in the typical “Made in Italy” sectors, while an indispensable and precious resource, in the future will not be a sufficient motor for growth, nor for maintaining current levels of production and of well-being in the new context of

global competition. Greater effort is needed to support the development of new services and new sectors of production in more High-tech and know-how intensive sectors, in conjunction with specific policies to help Industrial Districts adapt to the new processes imposed by globalization (Viesti 2005).

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