

The Agrifood Districts in the New Millennium

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Abstract

The Italian Industrial Districts (IDs) are considered to be one of the main reasons for the rapid industrial development and success of Italy since the Second World War. The SME's have also played an important role in this. In this paper we outline the general characteristics of the ID approach and the main structural changes in the new millennium, due to them facing the process of globalization. The distinctive figures of the agrifood districts and their mosaic style of development are then analysed to highlight the similarities and differences between them and the other IDs. First show that they are more relevant and that their geographical distribution is more important than those of other recently analysed Italian ID's. The different zones of origin of agrifood districts and their specialized production is often related to typical or high-quality products, with a strong connection to territorial traditions and manufacturing skills. These characteristics make agrifood districts different in some ways from other ID's where the declining "district effect" has been noted due to the general difficulties of Italian manufacturing industries. We will analysis these general structural changes focusing on the districts of the meat industry.

Keywords: *Economic Development, Agrifood Districts, Industrial Districts (IDs), SME's role, Efficiency of firms,*
JEL Codes: A1, C23, O1, Q10, Q17

1 Introduction: economic development and industrial districts in Italy¹

The economic development of Italian agrifood after the Second World War first transformed a predominantly agricultural country into an industrialised one and then, more recently, into a post-industrial economy. It is one of the best examples of a success story, even though there are permanent structural problems due to dichotomies at regional level and in the economic and social structure of the country as a whole.

The economic growth and the structural changes in the Italian economy in the last sixty years have been impressive. The number of people working in agriculture has fallen extremely rapidly, from more the 8.6 million in 1950 to less than 3 million in 1970 and less than 1 million today. In 1960 the number of people working in industry overtook those working in agriculture and peaked at about 8 million in the early 1970's, although since then it has decreased, and is about 5.2 million today. The number of people working in service sectors overtook those working in manufacturing industry in the 1970's and has continued to grow. Now it is about 17 million.

The rate of growth of the Italian economy during the "miracle" (1950-1963) was about 6% a year and the economy continued to grow at around 4% a year until 1973. The growth in these decades was mainly export led, with 8% of manufactured goods being exported, mostly to the EU. After 1973 the rate of growth of Italy declined steadily. It was under 3% a year between 1973-1990, and then fell to under 1.5% a year from 1990 to the present, with even lower rates of growth after 2000. In the last fifteen years the Italian economy in general has grown less than those of other members of the "Euro Zone" and in recent years there has been a debate about the "relative de-industrialization" or irreversible decline of the Italian manufacturing

1. This paper is a joint production of the authors. However Cristina Brasili wrote sections 2, 2., 4 and 4.1; Roberto Fanfani wrote sections 3, 3.1 and 3.2. The introduction and the conclusions were a joint production of the authors. The authors also wish to thank Elisa Ricci Maccarini for her valuable help in elaborating the data.

industry.

The Italian Industrial Districts (IDs) are considered to be one of the main reasons for the rapid industrial development and success of Italy since the Second World War. ISTAT data on and classification of ID's in 2006 (using 2001 Census Data) showed that in the 1990's the number of ID's declines from 199 to 156, but that they still played a relevant role in the Italian manufacturing industry. The relevance and localization of the ID's at regional level showed how the new Italian industrial "triangle" had now moved towards the North-East, in Lombardy, Veneto and Emilia-Romagna, and that it was now characterised by ID's, unlike the old industrial "triangle" of the 1950's and 1960's, located in Piedmont, Lombardy and Liguria, and characterised by the presence of large industries.

In recent years analyses of regional and local development have paid growing attention to the effects of globalisation on ID's and on the enterprises operating in industrial districts (University of Modena, 2003, Banca d'Italia 2005). The structural changes taking place in the new millennium are thought provoking and are related not only to the geographical agglomeration of the ID's, but also to the structure of the SME's and their strategies for internationalization. The emergence of "leader enterprises" and networking relationships provide a different perspective on the chances of survival and development of the ID's as they face the challenge of internationalization of the markets and economies.

In the paper we will focus first on the effect of these structural changes on the IDs in general, and then in particular on their effects on agrifood districts, with their specific characteristics and differences. In the last part we will analyse in depth the meat industry districts to verify whether these districts are declining in the new millennium.

2 The Development of the Industrial Districts in the New Millennium

The Italian industrial districts seem to be suffering from the effects of globalization and the new competitive world scenario. Since the 1990's several authors have studied the different performances of two classes of enterprises, the first belonging to industrial districts, and the others outside industrial districts, in order to verify and quantify the "district effect". These studies have stressed how the patterns of development of SME's in industrial districts differed from those of large enterprises, on one hand, and of isolated SME's, on the other. The growth of empirical studies has also provided new insights into many relevant aspects of IDs and local development. To be more precise, these studies have improved our understanding of the factors that allow many local economies and SMEs to survive and thrive in an open economy in the face of national and world competition.

We refer to the pioneering paper of Signorini F. (1994) on the wool districts of Prato and Biella, several works by the Bank of Italy (with a specific work-group on Local Development) and especially the paper by Fabiani S. and Pellegrini G. (1998) and Pellegrini G. (2000) which covered the main manufacturing sectors. There are also the sector-specific papers on agrifood districts by Brasili C. and Ricci Maccarini E. (2001, 2004), which highlight the better results of firms inside the agrifood districts up to 1998, especially in the meat industry when compared to fruit & vegetable districts. The discussion on the reduction in the "district effect", the "traditional" way of defining ID's and the well known characteristics of the IDs and will be amplified in section 4.

In this paper we start from these findings: in Italy there was a clear positive district effect for more than a decade, from the mid 1980's to about the end of the 1990's. Now it is relevant to discuss the following questions when analyzing the development perspectives of the Italian district: what external factors, i.e. those economic factors external to the enterprises but internal to the district, have ceased to operate? Why have the positive district effects, as shown in many papers that highlight the higher performance of SME's when compared to isolated

firms, decreased or disappeared? These questions are complex and require a complex answer, which we will try to provide in the next sections.

The management characteristics of the districts is not actually the problem. The real and relevant question is the specialisation of Italian industry. The approaches used to analyse the previous characteristics of IDs (see the contributions of Foresti G. Trentini S. in Chapter 1 of the Guelpa F. Micelli S., 2007), show the important transformation of the industrial districts, the different impact of this and changes at sector level. There have been new markets and competitiveness, a wider internationalisation process with the opening up of the productive chain (*filière*) and the emergence of new leader enterprises. These important changes and the new competitive scenario call into question the rigidity of the Italian industrial districts but some of them have demonstrated that they are able to react and do not suffer from serious unemployment.

The industrial districts will probably survive the “globalisation plus economic crisis” storm. They will have to start again from the area or region where they are located, re-evaluating and re-using the wealth of the social and economic characteristics of the area to fuel the external economies and to take advantage of local factors (Garofoli, 2003). One consequence of this approach is that standardised production will have to be abandoned in favour of more flexible management aimed at producing typical and niche products. These kind of products are of great importance in Italian food production and in particular in the agrifood districts. In the next sections we will analyse whether the Italian food sector and, in particular, the food districts are moving towards increasing interest in the richness of the “territory” (not to be confused with the reductive “localism” approach).

2.1 *The “New” Food Districts among the “New” IDs*

In the new globalisation scenario and in the first years of the new Millennium the Italian food industry has improved its export performance and is of growing importance in the employment market¹. In the Italian food districts² exports as a percentage of total food production grew from 14.3% in 1991 to 17.6% in 2004, and from 0.6% to 0.9% as a percentage of total exports. Employment in the agrifood districts as a percentage of total employment increased slightly from 5.1% of 1991 to 5.3% in 2001.

When one compares the industrial districts and the non-district areas with the same products, employment was better in several productive sectors in the IDs in the 1990's. For the food industry, in the non-ID areas the workforce fell by 11.2% between 1991 and 1996 but then rose by 3.4% between 1997 and 2001. In the agrifood districts the workforce fell by 5.3% between 1991 and 1996 and then rose by 9.2% between 1997 and 2001. Thus the increase in employment in the agrifood districts area was greater.

There was an important change in the exports of the Italian districts. While the EU-15 countries remain the most important export market, the percentage of exports to the EU-15 has fallen. In the first years of the new century the percentage of total exports to non-EU countries increased from 16% in 1995 to 24% in 2005. This change is principally due to low German consumption and the move of firms from EU countries to other sites (Guelpa F. Micelli S., 2007).

1. We will present some findings on the Italian agrifood districts and food industry presented in the Chapter 1 “I distretti in trasformazione: nuovi mercati, internazionalizzazione e l’emergere di leadership”, by Giovanni Foresti and Stefano Micelli in *I distretti industriali del terzo millennio*, Guelpa F. Micelli S., eds., 2007.

2. The definition of industrial districts that we use here includes the data on provinces and the export sector (something like the definition used by Edison-Cranec Catholic University) while in the next sections we will refer to our definition of the Agrifood districts. For this reason the findings cannot be compared exactly.

Different trends have been evident in the agrifood districts, with exports increasing most to the USA and Canada, from 12% in 1995 to 17% in 2005 of total food export, as well as to other countries, from 7% in 1995 to 12% in 2005. Once again this is because of the specific characteristics of the food produced. San Daniele ham, traditional balsam vinegar from Modena and Reggio Emilia, Fossa cheese, mozzarella, Modena salami, Zibello culatello, torroni, panettoni, pasta and so on are not produced easily in other countries. They are also non-standardised products and to be authentic have to be closely linked to the place of origin and the “knowledge” of the specific area. Thus these kind of products and the districts where they are produced are less vulnerable to competition from emerging economies such as China and India than are textiles, fashion and furniture.

Since the 1990's there have been important developments in the opening up of Italian production chains to the international market. The IDs were also involved in this process, outsourcing part of their network of suppliers and sub-suppliers, which before were inside the district, to emerging countries. The proxy measurement of this process can be done using the provincial data for imports and exports to identify the location and the amount of business with the involved sub-supplier. The index utilised¹ shows the capacity of Italian firms to check the flow of import from emerging countries. This is positively influenced when some products are exported to other countries and then come back to the Italian provinces for final processing (This is not, however, a complete measurement of the outsourcing of production). The index shows that Italian district products such as leather, footwear, textiles, tiles, glassware, furniture and food are of greater value than the manufacturing average (Table 2.1). The opposite is true for household electrical appliances and machine tools.

The products of the food districts were less able to check the flow of imports from emerging countries between 1995 and 2004. It was still less than that of imports of food by the non-district provinces, even though it remained higher than the manufacturing average.

1. For the explanation of the estimates of the index see pp. 73-74, in the above mentioned Guelpa F. Micelli S., 2007

Table 1. Manufacturing Industry Capability of Check the Import Flow (Manufacturing Industry average =100)

Sector	1995	2004
Food and Beverages	133.2	114.6
Textile	135.6	183.3
Clothing	86.7	109.2
Leather & Footwear	246.5	218.3
Wood	101.9	100.1
Paper	116.2	114.7
Print	33.9	34.0
Oil Products	270.3	248.2
Chemistry	39.4	47.8
Rubber	54.7	63.6
Non Metal Bearing	188.9	118.0
Tiles	181.0	111.9
Metals	92.2	124.1
Metals Products	62.4	63.4
Mechanical	69.9	71.9
-instrumental mechanic	59.5	70.0
- household electrical appliance	96.4	88.1
Electrical engineering	45.3	48.2
Information technology	38.0	12.8
Electronics	24.0	54.4
Precision instrument	67.1	214.4
Glassware	144.2	645.9
Vehicles	57.6	65.4
Other means of carrying	134.5	94.6
Other sectors	186.8	133.7
-Furniture	295.4	176.9
-Goldware	50.7	77.8
Manufacturing Sector	100	100

Note: grey are typical district products

Source: Intesa San Paolo elaboration of Istat data

There have also been important changes in the size of firms in the Italian IDs. In the early 1990's the firms in the IDs were smaller than other firms in the same market sectors. Thus at the beginning of the 1990's firms with less than 50 employees made up more than 65% of firms in the food and fashion districts, while outside the districts smaller firms were more important in the construction, household goods and machine tool industries. Generally speaking, between 1991 and 2001 there was an increase in the number of the firms with more than more than 250 employees in the IDs while the number of smaller firms declined. This did not happen with the firms outside the district areas. This process was particularly evident in the ID's in the food, construction supplies, furniture and household electrical appliance sectors.

Thus a process of concentration has taken place in the Italian IDs, with the size of the firms increasing, more openness in the production chain and improvements in business activities such as marketing, logistics, retailing and planning which are less directly related to production. The Italian IDs show a good vitality and capability of reaction to the different global and economic changes, in a differentiate level in the several sectors of manufacturing industry. Up to now we have no data about the last two years of more intensive crisis so we could not evaluate the impact on the IDs.

3 The Role of Agrifood Districts in Italy

3.1 *The agrifood districts: definition, identification and source of data*

The sources of data and the characterisation of IDs are of crucial importance not only when trying to understand the process of geographical agglomeration of food enterprises but also when trying to identify the explicit characteristics of each specialised ID so that specific economic policies can be adopted which will encourage further development and changes in the face of the challenge of globalization.

ISTAT (The Italian Statistical Institute) had provided much information on characterising the ID. They classified the ID using the data from the 1991 Census of Industry, Services and Population, and more recently updated their analysis with data from the 2001 Census. Sforzi (2006) identified IDs using a methodology based on the concentration of employment in manufacturing industries and basic services (greater than the national average), the presence and relevance of SMEs (fewer than 250 employees), and product specialization in a specific manufacturing sector (the Ateco classification). The territorial base used to identify the IDs was the "Sistemi locali del lavoro (Local System of Labour)", (up to now SLL) which clusters the more than two thousand Italian municipalities in 868 SLLs, according to the importance of employment, SMEs and the presence of manufacturing industries.

The 2001 census data was used to identify 156 IDs in Italy, with different agglomerations and specializations in their manufacturing sectors. In 1991 there were more IDs (199). These districts are often specialised in the production of high quality products that are part of what are called *Made in Italy* products, recognised for their quality all over the world. These include the machine tool industry, textiles, clothing, household furniture, shoes and leather goods, foodstuffs, and jewellery.

Slightly less than 2 million workers are employed in the IDs in Italy. This is about 70% of all those employed in manufacturing industries of the SLLs. Most of them are in the Centre (31% of total IDs) and North (32% in the North East and 30% in the North West), but there are also a few in the South (16%) (see figure). The 156 industrial districts identified in 2001 are areas of high specialisation in specific manufacturing sectors. Only 7 IDs belong to the food industry. Once again, as in the previous works by ISTAT (1996), the agrifood districts are largely "underestimated" with respect to the reality of the Italian food industry. Food districts are, indeed, only 4.5% of the total number of ID and make up only 1.8% of manufacturing firms and employ only 1.7% of manufacturing industries workers. The seven Agrifood districts are found only in few Northern Italian regions (Piedemont 3, Lombardy 1, Trentino A.A. 1, Emilia-Romagna 2). The main specializations of these districts are wine (3), meat transformation (Langhirano Parma ham and Valtellina "bresaola") and fruit and vegetables (juice and preserves in Lugo)

The ISTAT identification of IDs is mainly based on the geographical agglomeration of municipalities as "Local Systems of Labour", using the relevance of manufacturing industries and their main sectors. Inside the SLL the presence of the IDs is determined by: a) the *prevalent* manufacturing industry, which will establish the sector (Ateco classification) and ID product specialization b) the presence of many SMEs, in term of number of firms and number of employees inside the SLL.

Table 2.

Tavola 3 – Distretti industriali secondo l'industria principale

INDUSTRIA PRINCIPALE	2001			Composizione percentuale 2001		
	Distretti	Unità locali manfatturiere	Addetti manfatturieri	Distretti	Unità locali manfatturiere	Addetti manfatturieri
Tessile e abbigliamento	45	63.954	537.435	28,8	30,1	27,9
Meccanica	38	56.816	587.320	24,4	26,7	30,5
Beni per la casa	32	42.287	382.332	20,5	19,9	19,8
Pelli, cuoio e calzature	20	23.441	186.680	12,8	11,0	9,7
Alimentari	7	3.781	33.304	4,5	1,8	1,7
Oreficeria/strumenti musicali	6	13.010	116.950	3,8	6,1	6,1
Cartotecnica e poligrafiche	4	4.342	35.996	2,6	2,0	1,9
Prodotti in gomma e in plastica	4	4.779	48.585	2,6	2,2	2,5
Italia	156	212.410	1.928.602	100,0	100,0	100,0

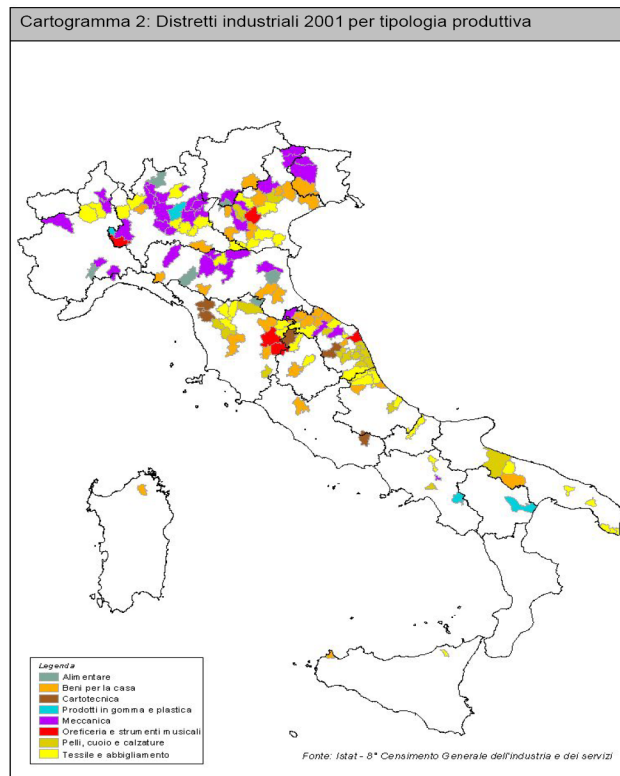


Figure 1.

Table 3.

Italy: AgriFood districts according to ISTAT							
Districts	Regionis	Municipalities	number of residents	Local Unity (LU)	Employment in LU	UL manufacturing firms	Employees in UL manufacturing firms
Cortemilia	Piedmont	18	9.098	857	2.272	123	697
Saluzzo	Piedmont	29	67.429	6.568	22.457	1.000	6.955
Santo Stefano Belbo	Piedmont	5	6.414	623	1.845	89	573
Morbegno	Lombardy	27	51.147	4.430	18.871	637	7.033
Ala	Trentino-A.A.	3	12.567	1.035	4.976	138	1.701
Langhirano	Emilia-R.	7	22.986	2.505	7.868	575	3.427
Lugo	Emilia-R.	9	95.072	8.782	34.036	1.219	12.918
Total districts		2.215	12.591.475	1.180.042	4.929.721	212.410	1.928.602
Italian total		8.101	56.995.744	4.755.636	19.410.556	590.773	4.906.315

Source: Istat (2006) I distretti industriali

There are some drawbacks to this useful methodology for identifying the IDs in a simple way. These are:

- it consider only the main “prevalent” manufacturing industry, excluding the possibility that in the same SLL there may be more districts with different specializations (Ateco sectors), or that there may be IDs in different SLLs.
- it does not consider the diversity of the different sectors of the Italian manufacturing industry in term of geographical distribution and firm organisation.

A different methodology was used to identify the agrifood districts which gave more importance to the locality, concentration and specialization of the Italian food industry (1.5 Ateco classification) at municipal level. This methodology takes into account the specialization of the agrifood districts and takes into consideration the differences which characterise the 8 main subsectors of the Italian food industry. It also attaches more importance to the presence of clusters of firms and agrifood districts, and in particular the meat industry than the ISTAT methodology does, as we will show below. It does not identify the SMEs, but the Italian food industry, with the exception of a few big firms or groups, is mainly based on SMEs.

This methodology specifically considers the concentration and specialization of the food industry (and not that of manufacturing industry) at municipal level (and not the local labour system). It uses six indices of localisation, concentration and specialisation of establishments and employees in the food industry at the municipal level. The indices were used to identify the municipalities with strong concentration and specialization in the food industry in one of the eight sub-sectors of the Ateco classification (the meat processing industry, dairy industry, fruit and vegetables, etc.). For a detailed description of the methodology and the results for 2001 see the work of Brasili (2006). In the following pages, for reasons of brevity, we shall concentrate on the meat processing industry. In previous works we observed that the other sub-sectors such as fruit and vegetables and the dairy industry are characterized by vastly different territorial features and presence of agrifood districts than is the case in the meat industry. Our methodology identifies numerous districts for the meat industry, such as Langhirano (Parma ham) and S. Daniele ham, but also other smaller districts of pork meat transformation (speck in South Tyrol, salami in Norcia). There are also other districts for Valtellina “bresaola” and poultry meat industries (Forli-Cesena and Verona)

The Association of the Chamber of Commerce (Unioncamere 2004), in association with the Istituto Guglielmo Tagliacarne, published a paper, “Quality rural and agrifood districts in Italy”, where this methodology was used to identify “local food industry systems of production and agricultural system of quality”. They did this to meet the requirements of the Ministry of

Agriculture, which in 2002 for the first time proposed specific policies to provide support for the agrifood districts.

A new relevant source of data and information about the IDs is the Federation of the Italian Districts (FDI). This was founded in 1994 by Unioncamere and the Industrial Association, with the main objective of establishing a dialogue and exchange of information and experience between the network of production filière that make up the Districts, as defined by Italian regional legislation. They consider the main sectors which characterize “made in Italy”: textiles, wool, machinery, agro-industry, shoes, leather, furniture, household goods, fashion and leisure. The FDI is interested in a broader concept of IDs, including also those in productive districts, tourist districts, technology transfer clusters, market leader firms and Institutions. The FDI, using this broader concept of districts, published “The Italian Guide to Districts in 2007-8”, which described 239 districts.

Many of the FDI guide are agrifood districts and they include about thirty examples with very special importance in terms of geographic area and territory (municipalities), the number of enterprises and the turnover. Some examples are the “pasta” districts of Gragnano (Naples) and Fara-S. Martino (Abruzzo), vegetable districts such as “winter vegetables” (Marsica, Abruzzo), “pachino” tomatoes (Sicily), the mechanised agriculture of Cento (Emilia-Romagna) and Pecorino Romano cheese in Sardinia.

3.2 A new analysis of the internationalization of agrifood districts: export, IDE and de-localization

The integration of the food industry in the international markets has made a major contribution to the success of “made in Italy” and Italian manufacturing sectors. Understanding the process of internationalisation of the food industry in terms of trade, foreign investments and de-localisation of firms is important to help us to understand the role of SMEs and the perspectives for many Italian agrifood districts¹. The new scenario in the new millennium, as we have seen, required developing new strategies which would allow the SMEs to develop. Their survival is crucial because, as we have seen in the paragraph on new agrifood districts, the presence of a large number of SMEs is still a characteristic of the well-known agrifood districts and typical products.

The international trade of food industries and enterprises

The internationalisation of Italian food industry made a relevant contribution the growth of Italian exports, and the SME's role in this has not been negligible. In fact SMEs are responsible for 65% of total Italian food exports. Their contribution in this sector are far greater than that in other manufacturing industries (52%).

The growth of Italian exports has been accompanied by important changes in their geographical destination. Italian firms export mainly to other European countries: about € 202 billion in 2004, or 73% of the total Italian exports. The other important destinations are North America with € 24 billion (8.6%) and Eastern Asia (6.6%), followed by the Middle East and Latin America (Table 3.2.1).

1. The role of food enterprises in the globalisation process will be analysed using the numerous surveys conducted in Italy at regional and national level. We will analyse in particular the results of surveys of manufacturing firms carried out by the Emilia-Romagna Region, the Italian Central Bank, Medio Banca - on medium size firms-, and the Italian Institute of Statistics

Table 4. Exports of Italian firms by size (small, medium, large) and geographical area (2000 and 2004)

Country	2000				2004			
	< 50 employees	50-249 employees	> 250 employees	Total	< 50 employees	50-249 employees	> 250 employees	Total
Europe	31.8	27.4	40.8	177,096	28.9	28	43.2	202,288
Northern	35.3	25.1	39.6	5,828	30.1	25.2	44.6	6,923
Other	38.1	20.8	41.1	2,914	40.2	20.7	39.1	3,194
North America	28.7	26.8	44.5	26,965	27.1	28.5	44.5	24,098
Latin America	27.7	22.7	49.6	9,712	25.2	23.2	51.6	7,591
Middle East	35.0	25.3	39.6	8,146	29.7	26	44.3	10,175
Central Asia	30.0	25.7	44.3	1,652	30.6	29.7	39.7	2,337
Eastern Asia	30.2	28.6	41.2	15,689	28.8	26.9	44.3	18,521
Oceania and others	31.0	27.4	41.7	2,636	31.0	24.2	44.9	3,502
World	31.4	27.0	41.5	250,638	28.8	27.5	43.6	278,625

Source: ICE processing ISTAT data

The changes in Italian exports have also had different impacts on Italian firms, depending on their size. Between 2000 and 2004, the percentage of total exports by small firms declined in almost all sectors of manufacturing industry, mainly in the traditional sectors of Italian specialisation, but, as said earlier, SMEs are still relevant in the food industry (Table 3.2.2).

Table 5. Exports of Italian firms by size and sector, years 2000 and 2004

Country	2000				2004			
	< 50 employees	50-249 employees	> 250 employees	Total	< 50 employees	50-249 employees	> 250 employees	Total
Europe	31.8	27.4	40.8	177,096	28.9	28	43.2	202,288
Northern	35.3	25.1	39.6	5,828	30.1	25.2	44.6	6,923
Other	38.1	20.8	41.1	2,914	40.2	20.7	39.1	3,194
North America	28.7	26.8	44.5	26,965	27.1	28.5	44.5	24,098
Latin America	27.7	22.7	49.6	9,712	25.2	23.2	51.6	7,591
Middle East	35.0	25.3	39.6	8,146	29.7	26	44.3	10,175
Central Asia	30.0	25.7	44.3	1,652	30.6	29.7	39.7	2,337
Eastern Asia	30.2	28.6	41.2	15,689	28.8	26.9	44.3	18,521
Oceania and others	31.0	27.4	41.7	2,636	31.0	24.2	44.9	3,502
World	31.4	27.0	41.5	250,638	28.8	27.5	43.6	278,625

Source: ICE processing ISTAT data

The international trade of the Italian agrifood Industry has been characterised by a structural deficit balance since the beginning of the 1970's, and this has remained more or less constant in the present century, at around € 7 billion.

Table 6. Italy: Imports-Exports and quota on the trade balance of Italian agrifood products (millions euro)

Year	Imports	Exports	Imports %	Exports %
1999	23,036	15,684	11.1	7.1
2000	25,078	16,860	9.7	6.5
2001	25,963	18,202	9.8	6.7
2002	26,102	19,121	10.0	7.1
2003	26,680	19,027	10.1	7.2
2004	27,340	19,478	9.6	6.8
2005	28,109	20,607	9.1	6.9
2006	30,261	22,265	8.6	6.7
2007	31,042	23,693	8.4	6.6
2008	32,011	25,271	8.8	7.6
<i>Var %2008/2007</i>	+3.1%	+6.7%		

Source: our processing of Istat data

The trade balance in agricultural products in 2006 was negative, at more than € 5.4 billion, with imports of € 9.7 billion and exports of € 4.3 billion (Table 3.2.3), with a great negative balance for live animals and animal products. Food exports have become more and more important with several sectors reporting a positive balance, even though total food imports in 2006 rose to € 20 billion while exports were € 17.6 billion, with a negative trade balance of 2.4 billion, with a great negative trade balance for processed meat and meat products (- € 3.5 billion). The livestock and meat sectors, both for agricultural and processed products, are responsible for the largest part of the negative trade balance of the Italian agrifood sector. In recent years food exports have continued to increase, particularly in 2008 (by 6.7% on the previous year), but there has been an important slow down in other sectors of manufacturing industry. The most recent data of ISTAT (2010) for 2009 register a sharp decline of export in the manufacture industry (-24% respect to 2008) but with a lower reduction for food industry export (-3%).

De-localisation and foreign direct investments in the agrifood industry

Foreign direct investment (FDI) by the Italian food industry in other countries are still not significant, while foreign investment in both Italian agriculture and the food industry are important, especially in recent years.

In 2005, according to ISMEA estimates, investments by the agrifood sector in foreign countries was only € 489 million, or about 1.6% of total Italian FDI. These foreign investments are directed mainly towards the food industry (84%) and only 16% to agriculture. The growth rate of FDI in agrifood was also much lower (+ 1.4%) than that of the total Italian economy (+ 4.7 %) in 2000-2004.

Table 7. Gross foreign direct investments in the Agrifood system from Italy

Sector	Millions euro	% on total economy	% yearly change rate average
	2005	2005	2000-2005
Agrifood	489	1.6	1.4
-Agriculture	79	0.3	2.6
-Food Industry	410	1.3	1.3
Total economy	30,723	100.0	4.7

Source: Ismea processing of Ice and Uic data

The Italian agrifood sector is still characterised by attracting a large amount of FDI, much higher than Italian FDI in this sector abroad. In 2005 FDI in the agrifood sector was over € 9.3 billion, or almost 7% of total FDI in the Italian economy, with an average growth rate higher than in the rest of the economy (*Table 3.2.5*).

In the new millennium new types of internationalisation are attracting the interest of the Italian agrifood industry and especially SMEs. The different forms of participation and their different objectives (production processes or marketing) constitute a network of relationships that represent new strategies for SMEs, offering them the opportunity to continue to survive and develop. To be more precise, SMEs can become involved in internationalisation through participation and cooperation with foreign enterprises, even when FDI is low.

Table 8. Gross foreign direct investments (FDI) towards Italy in the agrifood system and the total economy

Sector	FDI	FDI	% change	Year growth
	Millions euro	% total economy		rate %
	2005	2005	2005/04	2000-05
Agrifood	9,352	6.8	24.0	52.5
Agriculture	3,433	2.5	-4.9	106.4
Food Industry	5,919	4.3	50.5	39.6
Total economy	137,894	100	24.9	32.8

Source: Ismea processing of Ice and Uic data

Even though the number of Italian food firms that participated in foreign enterprises decreased between 2001 to 2005, their presence in foreign companies remains very relevant. Looking at manufacturing industry as a whole, about 4,150 foreign companies have a Italian firms participation. Of these, 607 were in the agrifood sector in 2001 with a turnover of € 16 billion. By 2005 the number had decreased to 576, with a turnover of more than € 16.5 billion (*Table 3.2.6*). While the number was smaller, the workforce increased from 96,000 in 2001 to more than 116,000 in 2005, a 4.7% annual rate of increase. Participation of Italian enterprises in foreign food companies is important in term of employment, and represents about 18% of the total participation in all manufacturing companies.

Table 9. Foreign companies with Italian participation in the agrifood system

	Companies	Employees (000)	Turnover millions €	Companies	Employees (000)	Turnover millions €
Sectors	2001			2005		
Food industry	607	96	16,055	576	116	16,589
Manufactured industry	4,147	648	109,530	4,767	690	117,223
Total economy	12,992	812	205,099	14,416	874	223,670

Source: Ismea processing of Ice and Uic data

Analysing cooperation, aggregation and collaboration of firms in Emilia-Romagna will expand our knowledge of the strategies of internationalisation adopted by what has been called “mini-multinational”. These are the medium size enterprises that are assuming a leadership role in the agrifood districts, as we have seen in the previous paragraph.

271 food enterprises from Emilia-Romagna participated in foreign enterprises in 2005, or in

other words more than one third of all regional manufacturing firms involved in foreign collaboration. Most collaboration is with other EU countries (119 firms), followed by Eastern Europe (45 firms), Latin America (40 firms) and North America (33 firms). A survey of the firms from Emilia-Romagna provides more insight into the characteristics of the internationalisation process of these food enterprises (UnionCamere, 2006). First of all, firms that have important investments in foreign countries are capital companies or cooperatives. This is not surprising because these are particularly typical of enterprises in Emilia-Romagna, and this is one of the things that makes the region different from other Italian regions. Second, these enterprises had previously developed several forms of collaboration with other firms in the region or from other regions, aimed at investing or collaborating with foreign enterprises. Third, “The most common forms of network are consortium, association, or participation in the capital of the companies. They design a real network among firms to develop international partnerships. Collaboration with foreign enterprises also often takes the form of networking with more foreign enterprises, with different development objectives. Sometimes participation is aimed at production activities and some others are devoted to marketing the products” (Brasili, Fanfani 2007).

It is interesting to analyse these forms of development of enterprise internationalisation further, in particular with reference to SMEs, especially medium sized ones. These types of enterprise are “leader medium sized enterprises”, as they were described in recent analyses of the structural changes in IDs. This new analysis will allow us to understand better the growth of the internationalisation process in agrifood enterprises and their role in the recent development of agrifood districts. It will be also interesting to analyse further the role of regional and local institutions that support this type of internationalisation and enterprise development. It may be of relevance to start this further research in Emilia-Romagna, because in 2000 it became the first Italian region to adopt a specific program (SPRINT-ER), with a help desk for internationalisation of SMEs (see Maccani et al. 2007).

4 Analysis of the ham districts of Parma & Reggio Emilia and S. Daniele

Here we deepen our analysis of the findings in section 2 on the reduction in the district “effect” and the “traditional” way of defining ID and their capacity of reaction to the changes in the social economic and situation. We do this by carrying out an analysis of a specific Italian district meat sector: the ham districts of Parma and San Daniele.

We start from our paper presented to the third International European Forum in 2009 “A Mosaic Type of Development: Food Districts and SMEs in the Italian experience”, which showed the important reduction in the district effect in the meat sector from 1998 to 2002. The results were, indeed, in conflict with previous findings (Brasili C., Ricci Maccarini E., 2001, 2004). In the previous paper the district effect was found to be positive and evident between 1996 and 1999 although there was a decreasing district effect in the meat industry, especially in the first years of the new century. In other words the firms from the two most important meat districts, Parma and San Daniele, are losing their economic and efficiency advantages with respect to non-district firm. However they still have the most valuable geographical location, with a higher number of efficient medium size enterprises. These findings on the agrifood districts are more or less supported by those on others sectors too.

4.1 Economic Performance of the ham districts of Parma & Reggio Emilia and S. Daniele and of the other meat firms in the provinces of Parma and Reggio Emilia

We selected, from the balance sheets of food industry firms, those firms which were part of the meat sector from 1999 to 2008. Our set of data consists of 110 firms from the ham districts of Parma & Reggio Emilia, 14 other meat firms from the provinces of Parma and Reggio Emilia and 30 firms from the ham district of San Daniele (average data from 1999 to 2008)¹. We clustered the data into three main groups of firms: the two well known ham districts of Parma & Reggio Emilia, those from S. Daniele and the other meat firms of the Parma and Reggio Emilia provinces which did not belong to the district of Parma & Reggio Emilia².

The Parma and San Daniele ham-producing districts are of economic importance in Italy's agrifood industry because they epitomise the made-in-Italy brand, which is increasingly popular both in Italy and abroad. These two districts - although both are (mainly) ham production areas - have strikingly different structural and economic features. The Parma district can be considered one of the main specialised areas for meat processing (Brasili C., 1999, Brasili C., Ricci Maccarini E. 2001). The Parma ham district specialised in pork meat processing and the *prosciutto* of Parma is undoubtedly the most valuable local product. Here we provide some figures for ham production in Parma in 2008: about 9.8 million sides of ham produced, 2.9% more than 2007; 164 firms; 4,987 pig farms; turnover about € 1700 million, of which € 1,300 million was in Italy and € 400 million exported; a 2.7% decline in sides sold abroad with respect to 2007; an increase of 6.5% in sales of slices with respect to 2007, with increases of 8.4% and 5.7% abroad. Its salient feature is that it derives from processing a so-called "heavy pig" (a pig of 180 kilograms or more). The pigs are raised mainly in the area and the meat processed there. The Langhirano firms season the ham for 12 months or more.

The local "San Daniele" system, by contrast, is based in just one of the eponymous municipalities. This district specialised exclusively in the seasoning, stocking and marketing of "San Daniele" ham. However all the raw material comes from outside the municipality, mainly from other Italian regions. Here we provide some figures for San Daniele ham production in 2008: 2,8 million sides of ham produced, 2.9% more than 2007; 30 firms; 4,818 pigs farms; turnover more than € 330 million; sales 2% higher than in 2007. Ham production has increased since 1995.

We analysed the main economic and financial results of the meat firms belonging to each of these three groups in order to determine whether the "district" effect holds in the new Millennium. We used the most common economic and financial indicators. In the analysis we used the median value because the average is influenced by outliers, which are common in balance sheet data.

The main results that emerge from the economic and financial analysis (as shown in graphs 4.1 to 4.6), confirm the previous findings. There is an almost general and clear convergence of the economic and financial results of the firms in a district towards the same level as those of non-district firms. These results seem to clearly identify a pattern for the Parma and San Daniele ham districts, starting from our previous works with data from 1996 to 1998 in the

1. The data used consisted of the firms derived from the general data bank of manufacturing industries with a minimum turnover of € 1 million. We started from the active firms in the meat sector in 2008 and went to 1999 so that we had the maximum number of enterprises in the three clusters identified in 2008. the number decreased towards 1999.

2. From now on we will refer to the ham district of "Parma & Reggio Emilia" as the ham district of "Parma & R. E."

first paper (Brasili C., Ricci Maccarini E., 2001), from 1996 to 1999 in the second paper (Brasili C. and Ricci Maccarini E., 2003) and with data from 1998 to 2002 in the third (Brasili C., Fanfani R., 2009)¹.

Within the meat sector differences between firms in the district and outside the district are disappearing, namely those “traditional” characteristics referred to in the pioneering studies by Bagnasco A. (1977) and Becattini (1987, 1989). There thus seems to be a tendency for the economic and financial results to become more similar². We describe the detailed results of the new analysis from 1999 to 2008 in the following paragraph.

The Parma and San Daniele meat processing districts generally had higher return on sales (ROS) than the other meat firms in Parma & R.E. provinces, until 2007, when the value of San Daniele district (2.6%) went down to the level of the other two clusters (3.6%, 4.8%) (graph 4.1). The Parma and San Daniele districts started with a higher ROE, about 5%, from 1999 to 2002 than that of other meat firms in Parma & R.E. provinces, but the opposite was true from 2002 to 2005 (graph 4.2). From other studies conducted on Italian districts (Signorini 1994; Fabiani S., Pellegrini G. 1998, Brasili C., Ricci Maccarini E., 2001; Brasili C. and Ricci Maccarini E., 2003), we can confirm the higher return ratios for the firms located in the districts, but in recent years there has been little evidence of this. The meat firms have generally converged towards lower level of return ratios.

There is a more or less common trend in the rate of vertical integration, which is generally lower in the IDs specialized in a single phase of production, for the Parma ham district and the other meat firms in Parma & R.E. Provinces between 1999 and 2008, at about 16-17%, while in the San Daniele district the value decreased from 26% in 1999 to 21% in 2008 (graph 4.3). Once again there was a sort of convergence process, although some differences persisted. This is due to the higher specialization in only one kind of production in San Daniele. All the firms produce only ham, and inside the district there are the productive phases with higher added value.

The current financial ratio shows figures in the three clusters of meat firms converging towards 1, the lower value, between 1999 and 2008 (graph 4.4). The ongoing situation is the limit one in which assets equal liabilities, and it shows a worsening situation for all kinds of firms.

The quick ratio gave different results: the Parma and San Daniele district firms had more or less the same trend from 1999 to 2008 and a good financial situation with values around 0.6-0.7, while other meat firms in the Parma & R.E. provinces had higher trends with values increasing and from 2006 being higher than 0.8, which indicates a slightly worse financial situation (graph 4.5). Labour productivity was higher in the Parma and San Daniele district firms than other meat firms in Parma & R.E. provinces in all the years considered, and the gap widened a little in the last two years (in 2008 it was more than € 82,000 in the two districts and about € 65,000 in the other firms) (graph 4.7). These results are in line with the expectations for the traditional characteristics of the IDs. Instead, labour costs increased in all three clusters (only in the last two years did the labour cost indicator of other meat firms in Parma & R.E. Provinces falls) not completely agree with the theory on industrial districts. This finding suggests that district firms without higher salaries have higher productivity (graphs 4.7 and 4.8).

1. The results of this paper are not completely comparable with the previous ones, as some firms have changed over the years and the set analysed is not exactly the same.

2.

Figures 2 to 7 - The Dynamics of the Main Economic and Financial Indicators in the ham District of Parma, Ham District of San. Daniele and the Other Meat Firms in Parma and Reggio Emilia Provinces

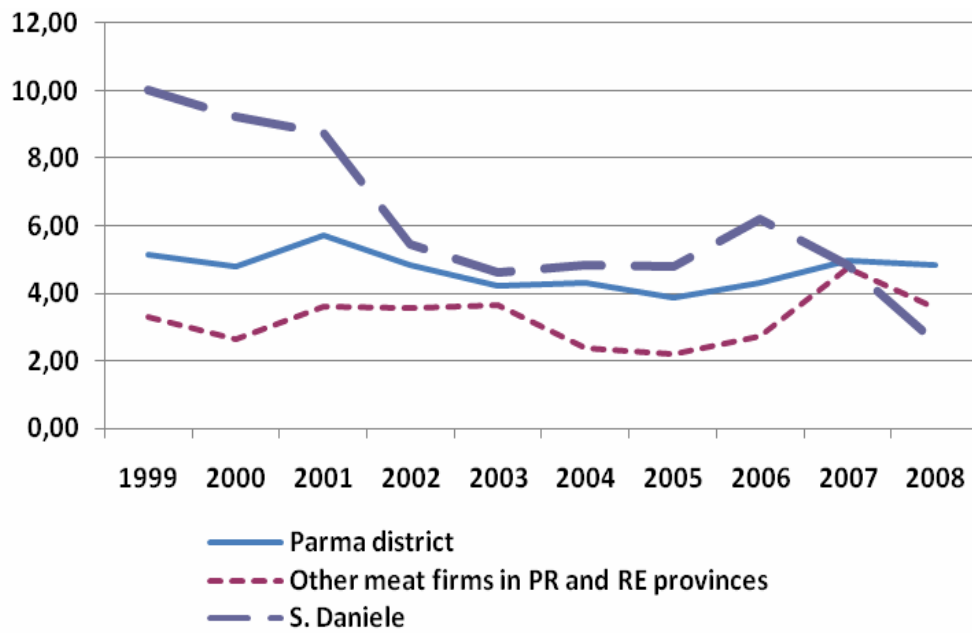


Figure 2. ROS

Source: our processing of AIDA-Bureau Van Dijk data

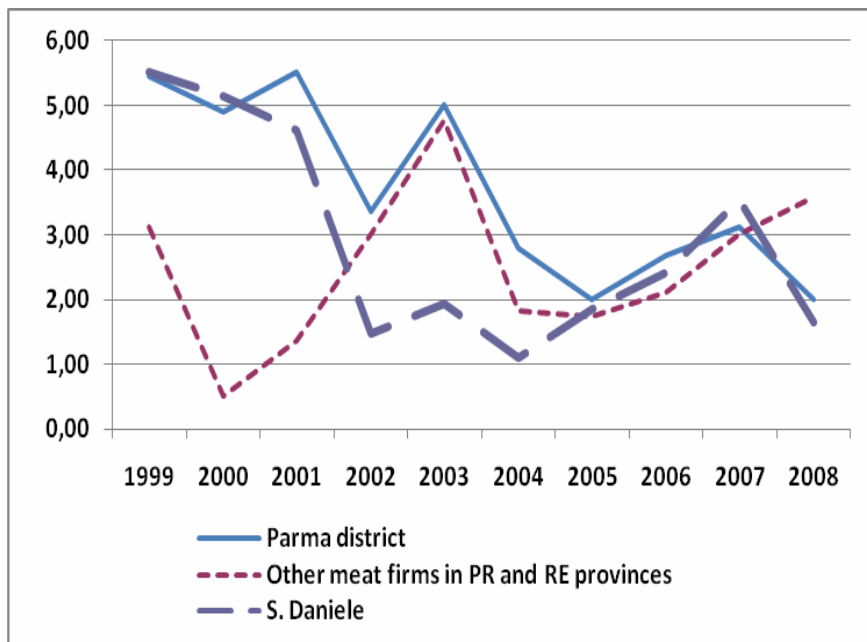


Figure 3. ROE

Source: our processing of AIDA-Bureau Van Dijk data

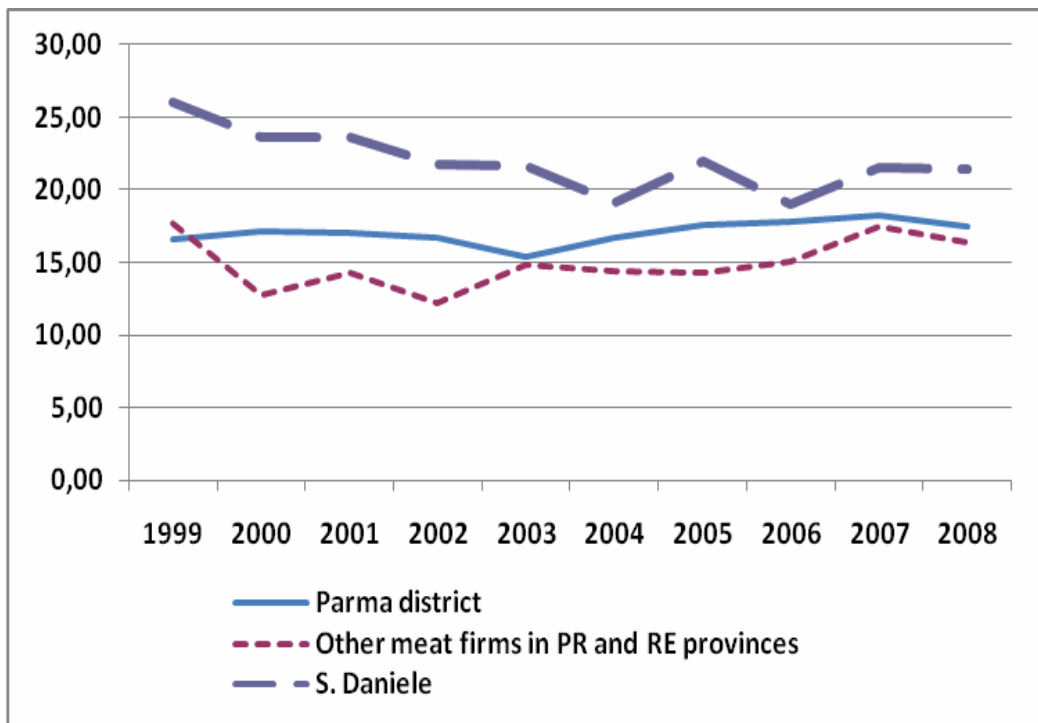


Figure 4. Vertical integration
 Source: our processing of AIDA-Bureau Van Dijk data

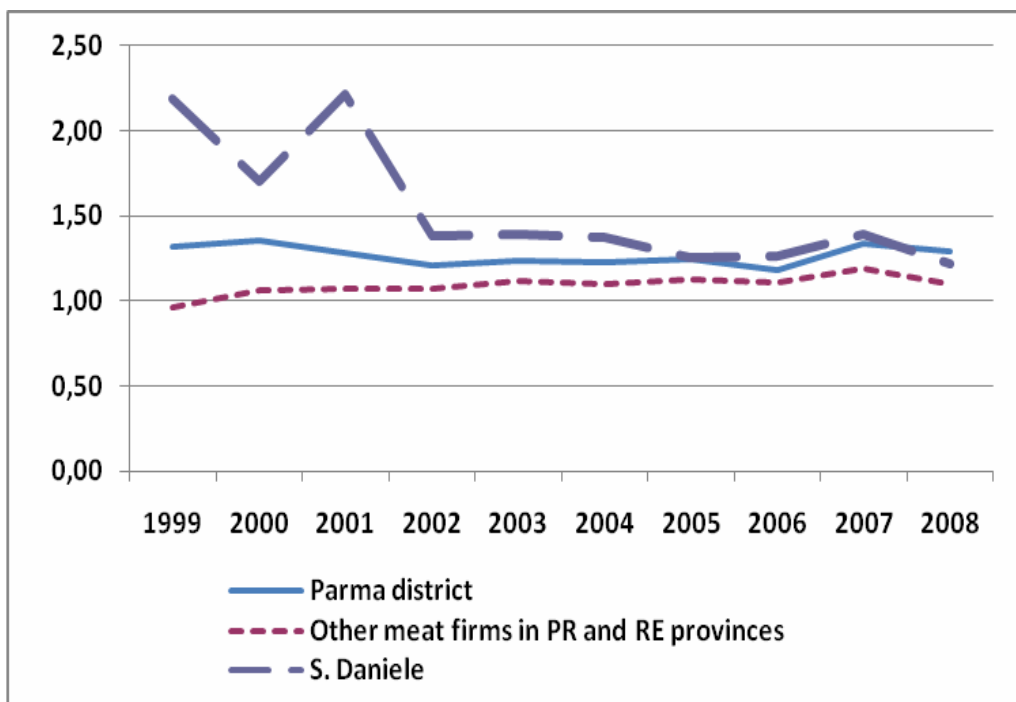


Figure 5. Current Ratio
 Source: our processing of AIDA-Bureau Van Dijk data

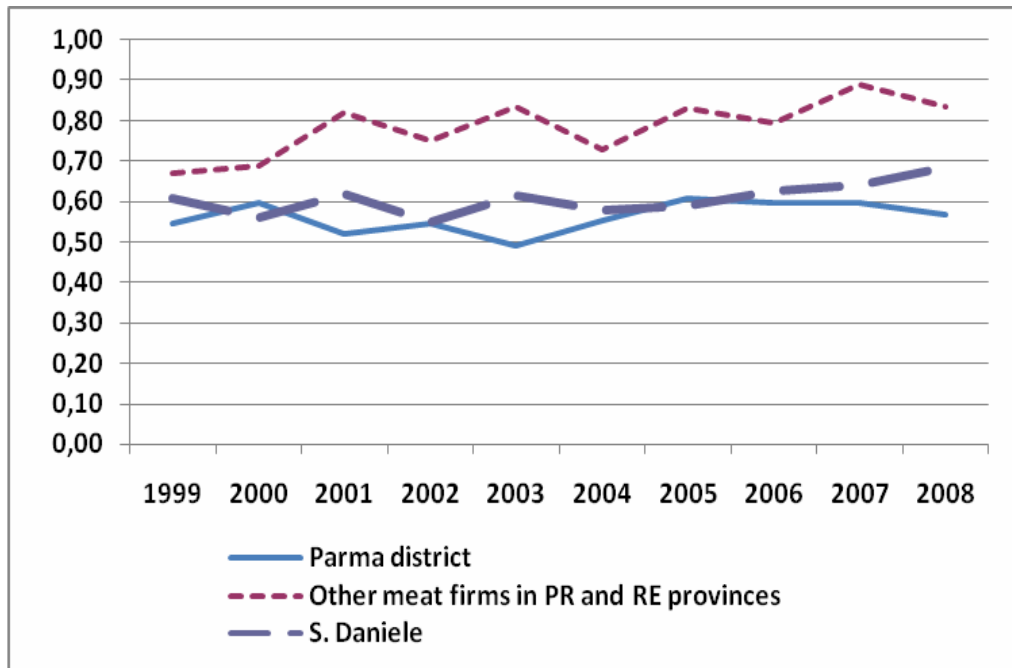


Figure 6. Quick Ratio

Source: our processing of AIDA-Bureau Van Dijk data

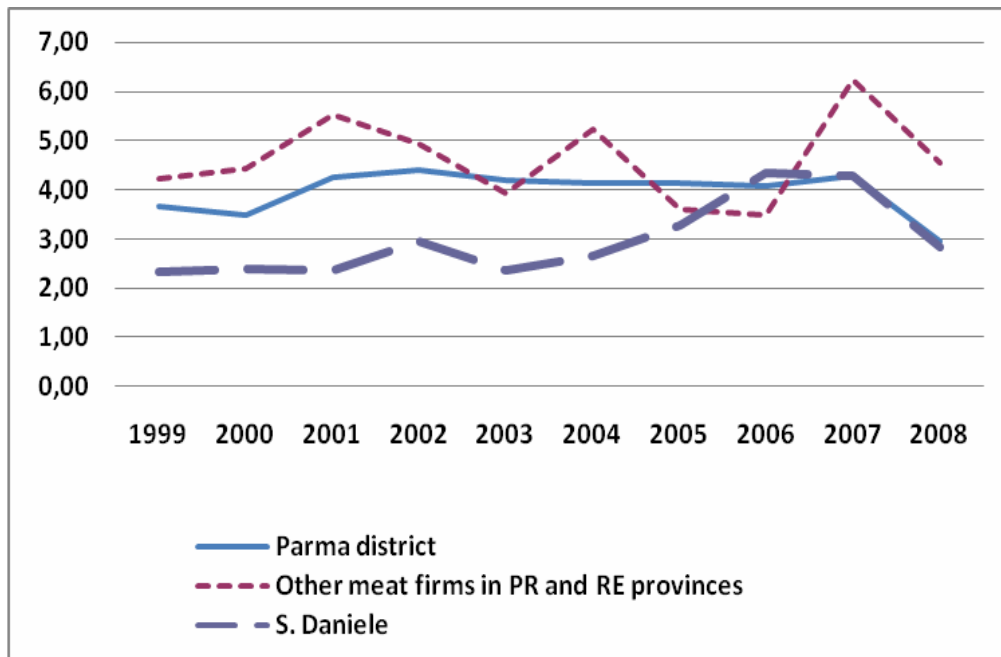


Figure 7. Leverage

Source: our processing of AIDA-Bureau Van Dijk data

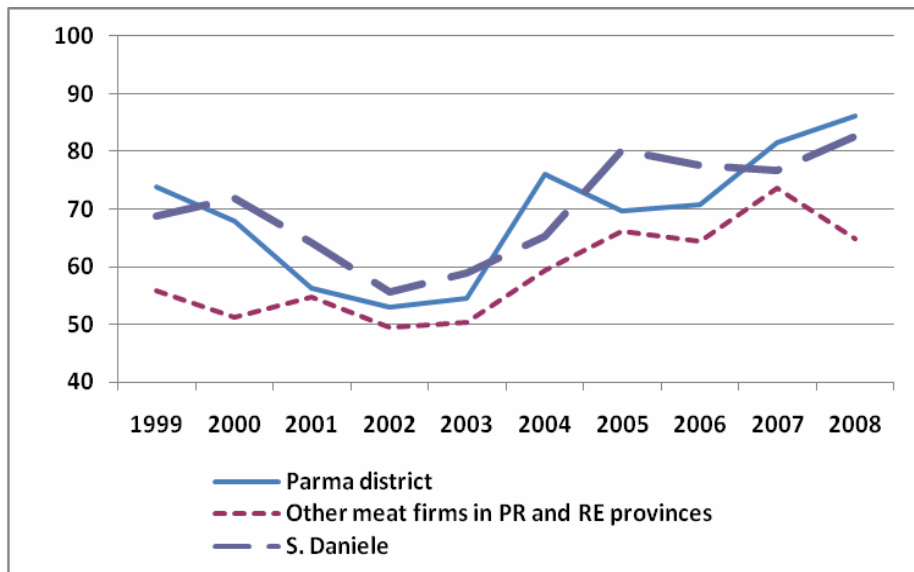


Figure 8. Labour productivity (.000 euros per employee)

Source: our processing of AIDA-Bureau Van Dijk data

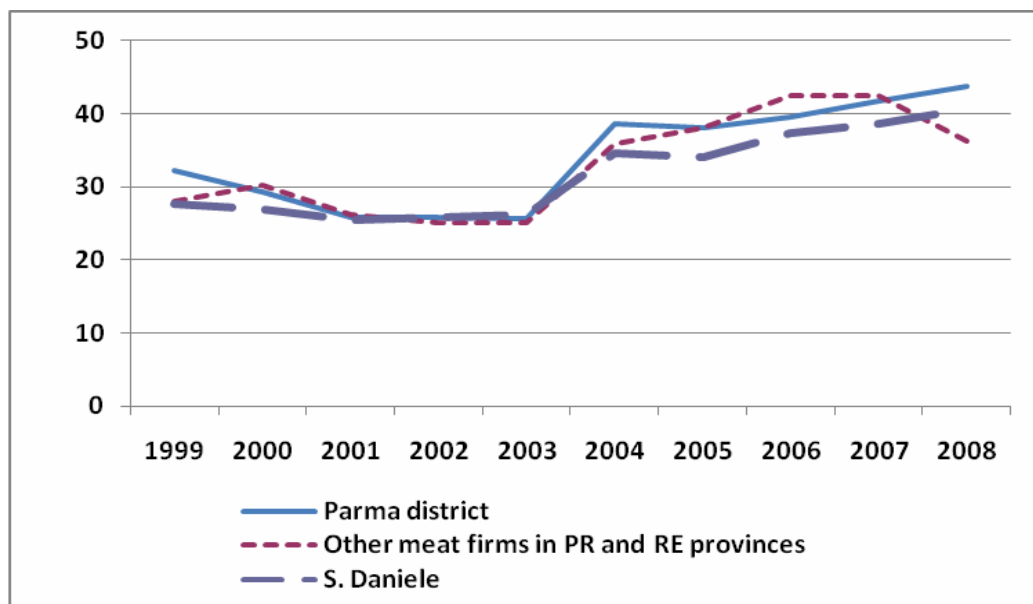


Figure 9. Labour cost per employee (.000 euros per employee)

5 Conclusions

Have the “externalities”, namely those economical factors which are to be understood as external to the enterprises but internal to the district, run out? More, has the positive district effect shown in many previous papers, that highlights the higher performance of SME’s than isolated firms disappeared?

To answer these important questions we have to consider the main structural changes that have occurred in the last decade. Since the beginning of the new millennium there have been important transformations in the economic scenario at national and international level and these have greatly influenced and had different impact on the industrial districts and the

various sectors of manufacturing industry. A wider process of internationalisation with new markets and competitiveness, with greater openness of the productive chain (*filières*), both in trade and FDI, and the emergence of new leader firms are the main aspects of these changes. To survive the “globalisation plus economic crisis” storm, the industrial districts will have to start again from the area or region where they are located, re-evaluating and re-using the wealth of the social and economic characteristics of the area to fuel the external economies and to take advantage of local factors (Garofoli, 2003). ID with standardised products will face greater difficulties and will lose their market position in favour of those with complex and flexible management that produce “typical” and “niche” products. Some of the IDs have shown that they are capable of reacting, have no employment difficulties and are also changing the geographical specialization of the export. An important number of agrifood districts have the above mentioned characteristics of quality and typicality. These are not easy to reproduce or imitate, at least from the Italian experience.

In the new global scenario of the new millennium the Italian food industry is increasing its export performance and its importance in the labour market. In the Italian agrifood districts exports grew between 1991 and 2004 from 14.3% to 17.6% of the exports of the total food sector, and from 0.6% to 0.9% of the exports of the total Italian manufacturing industry.

The new millennium scenario has also had an impact on the firms and especially on the SMEs which characterise the food industry and the agrifood districts in particular. The SMEs (with less than 250 employees) in the food industry are still responsible for 65% of exports, against an average of 52% in manufacturing industry. These export results are also connected to the new types of internationalisation which are affecting the Italian agrifood industry and in particular the SMEs.

The different kinds of internationalisation have been characterised by a lower level of FDI in the food industry than in other “made in Italy” sectors of the Italian manufacturing industry. The de-localization of food enterprises has become less important and it has not regarded the production processes. The new strategies of internationalization for SMEs are mainly based on the development of a network of relationships with foreign enterprises with different forms of participation. The most common forms of networking are consortiums, associations, or participation in the capital of the firms. They create a real network among firms to allow them to develop international partnerships. Collaboration with foreign enterprises also often takes the form of networking with more foreign enterprises with different development objectives. This is aimed at production activities while others are mainly devoted to marketing the products.

In order to determine whether the “district” effect holds in the new millennium, we analysed the main economic and financial results of firms in the Parma and San Daniele ham districts, which are the main and most important districts of the Italian meat processing industry. The analysis used the most common financial and economic indicators from the balance sheets (1999 to 2008) to show that there was a sort of convergence between the district enterprises and the other meat firms in Parma & Reggio Emilia provinces, even though the results of the economic and financial indicators were still good.

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-*San Daniele Ham Consortium*

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