National Quality Policy Report:
Italy

Luciano Jacoponi, Gianluca Brunor, V. Lolossimo, A. Loi, Mara Miele, R. Marozzo, Vitoria Parisi, M. Rovai and F. Ventura

May 1997

Project „Quality Policy and Consumer Behaviour"
FAIR-CT 95-0046

This study is part of the project

QUALITY POLICY AND CONSUMER BEHAVIOUR TOWARDS FRESH MEAT

Project coordinator:

Tilman Becker

Institut für Agrarpolitik und Landwirtschaftliche Marktlehre,
University of Hohenheim

The study has been carried out with the financial support from the Commission of the European Communities, Agriculture and Fisheries (FAIR) specific RTD programme, CT 95-0046, „Quality Policy and Consumer Behaviour“. It does not necessarily reflect its views and in no way anticipates the Commission’s future policy in this area. This manuscript presents only some of the results. Other studies can be downloaded from ***http://www.uni-hohenheim.de/~apo420b/eu-research/euwelcome.htm***

Section I: Introduction

Before introducing the analysis of the different meat chains, it can be useful to provide a general outline of the sector. According to estimates of the ISMEA, in 1995 production was worth almost 17.000 billion, equal to 25% of the overall amount of farm activity. The modest rate of self-supplying in Italy is evident: although it has been recording an increasing trend when compared with the end of the 90's, it is still limited (around 70/71%) and lower than at the end of the 80's (Zucchi, 1990).

The overall available quantities should have been approximately 5m tons, scoring a total value worth 25,300 billion liras, slightly increasing since the end of the 90's (+2.4%) in quantity and markedly increasing in monetary terms (+ 25,7%), even though these data are not deprived of the inflationary effect.

These quantities had been achieved through a relevant increase of production (+8.3%) and an equivalent shrinkage of imports. Also, it must be noted that over the last five years export have been progressively increased (+24.1% in quantity), even though propensity to export has not substantially changed in quantity levels and has slightly increased in monetary terms (+3.2%).

Finally, it must be stressed that the 90's consumption per person is fundamentally stationary, having recorded a 0.5% increase of consumed quantities than in 1990, which at present result in approximately 84 kg per year.

Table A - The Balance of the Meat Chain (billions of liras) *(Source: Ismea)*

	avg. 87-91	1992	1993	1994	1995*
saleable gross production	12,955	14,443	15,334	15,527	16,818
import	7,173	8,089	7,927	8,133	8,492
available quantities	20,128	22,532	23,261	23,660	25,306
export	795	1,254	1,310	1,395	1,562
resulting consumption	19,333	21,278	21,951	22,265	23,744
rate of self-supplying (%)	67.0%	67.9%	69.9%	69.7%	70.8%
balance	-6,378	-6,835	-6,617	-6,738	-6,930
movement	7,967	9,343	9,237	9,528	10,054

*estimate

Table B - The Balance of the Meat Chain (000 tons.) *(Source: Ismea)*

	avg. 87-91	1992	1993	1994	1995*
saleable gross production	3,360	3,532	3,522	3,603	3,639
import	1,554	1,659	1,147	1,107	1,425
decrease stocks	31	6	67	17	-
available quantities	4,944	5,197	4,736	4,727	5,064
export	203	324	264	269	252
resulting consumption**	4,741	4,873	4,472	4,458	4,812
consumption per person	83.6	85.7	78.4	78.0	84.0
rate of self-supplying (%)	70.9%	72.5%	78.8%	80.8%	75.6%
balance	-1,350	-1,335	-883	-838	-1,173
movement	1,757	1,983	1,411	1,376	1,677

*estimate, **including variation of stock

Table C - The Balance of the Meat Chain (trends) *(Source: Ismea)*

liras ==>	var. '95/ avg. 87-91	var. '95 / '94	Tons ==>	var. '95/ avg. 87-91	var. '95/'94
saleable gross production	29.8%	8.3%		8.3%	1.0%
import	18.4%	4.4%		-8.3%	28.7%
available quantities	25.7%	7.0%		2.4%	7.1%
export	96.5%	12.0%		24.1%	-6.3%
resulting consumption	22.8%	6.6%		1.5%	7.9%
			consumption (kg/per-person)	0.5%	7.7%
rate of self-supplying (%)	3.8%	1.1%		4.7%	-5.2%
balance	8.7%	2.8%		-13.1%	40.0%
movement	26.2%	5.5%		-4.6%	21.9%

*estimate, **including variation of stock

Section II: Industry Structure and Quality Policy Issues

2.1. Structure of the Pork Chain

2.1.1. Supply by Source

Over the last eight years pork **national production** has been progressively increasing and only in 1995 a slight downturn was evident. In comparison with the 90's, production raised by 7.7% in quantity and reached approximately 1 million Tons with an overall value of 4,900 billion and an increase of 50.8% in current monetary terms (Tables 2.1, 2.2 and 2.3).

The rate of supply fell down to the current levels of the bovine chain. In 1970 the self-sufficiency of volumes scored 80%, at present only 63-64%. In our opinion, the growing dependence on foreign market is quite worrying on account of the following reasons: on one side, the large quantity of primary products (as we will see in detail) which is conveyed to production of typical and quality; on the other side, the relevant upward trend of consumption (from 26.8 kg. at the end of the 90's up to current 28.6 kg. with an increase of 6.7%). Owing to its larger opportunities for diversification and its more rapid use, pork easily allows to meet the requirements of modern consumers.

The increase of pork production recorded over the last decades was undoubtedly favoured by the development of breeding technologies. These allow an industrial organisation of the production process, which is growingly free from the limits imposed by the necessary available land to produce feed. As a matter of fact, however, Italy didn't record increasing rates similar to other countries of Northern Europe. Owing to a more efficient general management of the chain (better assistance during farming - genetic selection, feed, etc. - and more effective commercial operations), these countries have come to exert a strong competitive pressure and weakened the Italian sector through a product supply with a far more favourable cost and quality ratio.

Moreover, a natural check to Italian pork comes from a prevailing production of "heavy pig" for the processing industry. This production is absent in North and Centre Europe countries, which however hold the monopoly of the "light pig" production for consumption of fresh meat, which allows more profitable margins because of its larger output.

Table 2.1 - The Balance Of the Pork Chain (billion liras) *(Source: ISMEA)*

year ===>	av. 87-91	1992	1993	1994	1995*
saleable gross production	3,249	4,282	4,068	3,978	4,901
import	1,958	2,539	2,225	2,327	2,697
Available quantities	5,207	6,821	6,293	6,305	7,598
export	362	490	586	669	804
resulting consumption (billions)	4,845	6,331	5,707	5,636	6,794
expenditure per person (000 liras)	85	111	100	99	119
rate of self-supplying (%)	67.1	67.6	71.3	70.6	72.1
balance	-1,596	-2,049	-1,639	-1,658	-1,893
movement	2,320	3,029	2,811	2,996	3,501

*estimate

Table 2.2 - The Balance Of the Pork Chain (000 tons) *(Source: ISMEA)*

year ===>	**av. 87-91**	**1992**	**1993**	**1994**	**1995***
saleable gross production	956	995	1,026	1,049	1,030
import	616	699	605	654	679
available quantities	1,557	1,699	1,631	1,703	1,709
export	37	57	68	64	72
resulting consumption**	1,520	1,642	1,563	1,639	1,637
consumption per-person (kg)	26.8	28.9	27.4	28.7	28.6
rate of self-supplying (%)	62.9%	60.6%	65.6%	64.0%	62.9%
balance	-579	-642	-537	-590	-607
movement	653	756	673	718	751

*estimate, ** including variation of stock

Table 2.3 - The Balance Of the Pork Chain (trends) *(Source: ISMEA)*

liras ==>	**var. '95/ avg. 87-91**	**var. '95/'94**	**tons ==>**	**var. '95/ av. 87-91**	**var. '95/ '94**
saleable gross production	50.8%	23.2%		7.7%	-1.8%
import	37.7%	15.9%		10.2%	3.8%
Available quantities	45.9%	20.5%		9.8%	0.4%
export	122.1%	20.2%		94.6%	12.5%
resulting consumption (billions)	40.2%	20.5%		7.7%	-0.1%
expenditure per-person (000 liras)	40.0%	20.2%	consumption (kg/per-capita)	6.7%	-0.3%
rate of self-supplying (%)	5.1%	1.6%		0.0%	-1.1%
balance	18.6%	14.2%		4.8%	2.9%
movement	50.9%	16.9%		15.0%	4.6%

In the period 1991-95 imports increased by 10.2% in quantity and 37.7% in value. The import flows of the three main commercial classes (livestock, meat, processed products) are distributed as follows: almost at 66% of volume and at 68% of value imports are covered by fresh meat, at 17% of volume by livestock and by an equivalent rate of frozen meat. The flow of processed products is substantially limited (3-4%).

The most relevant imported livestock - which as already said is declining - are animals weighting over 50 kg, namely the "light pig" typology for fresh consumption, untypical processing and not seasoned products.

Even though it has doubled over the period 1991-95, propensity to export is negligible and confirms the structural weakness of Italian pork production that is scarcely winning foreign markets.

2.1.2. Farm Production

Following the analysis of the production trends in section 2.1.1., Table 2.4 shows the current pig-breeding resources, which are estimated as approximately 8 million of head and are slightly decreasing in comparison to 1994; the decrease prevailingly concerns the fattening animals (-3.2%). Italy is currently covering 6.8% of the total EU pig-breeding resources.

Table 2.4 - Number of Animals (000 head) - *(Source: Eurostat)*

	ITALY			**UE a 15**			**I/UE**
	1994	**1995**	**var. 95/94**	**1994**	**1995**	**var. 95/94**	**1995**
Pigs up to	3,148	3,176	0.9%	64,130	62,708	-2.2%	5.1%
Fattening pigs > 50 kg.	4,279	4,144	-3.2%	42,660	43,094	1.0%	9.6%
Female > 50 kg.	678	683	0.7%	12,647	11,346	-10.3%	6.0%
Of which pregnant	541	543	0.4%	8,521	8,375	-1.7%	6.5%
Others	37	37		479	1,464		
Total	**8,142**	**8,040**	**-1.3%**	**119,916**	**118,612**	**-1,1%**	**6,8%**

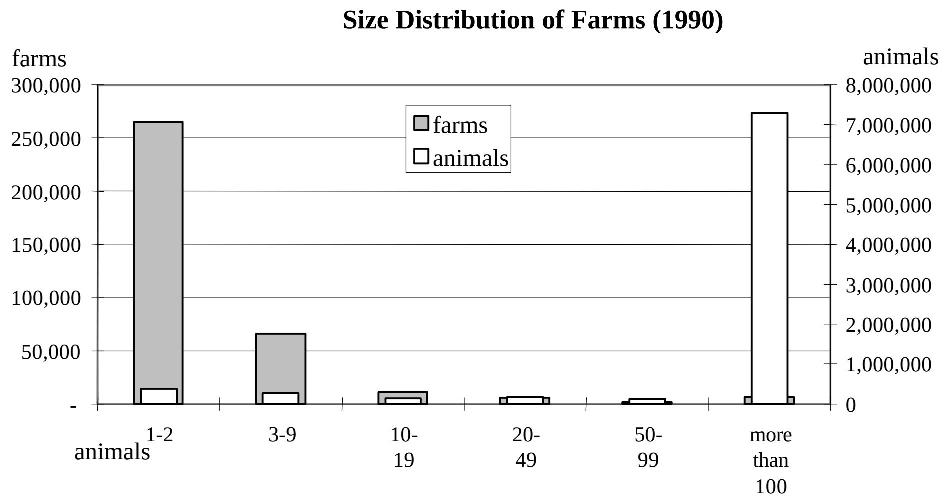
Table 2.5 - Stock farms and number of animals *(Source: ISTAT, 1990)*

Number of animals per farm	Farms	Animals	% Farms	% Animals
1-2	265,511	376,428	74.3%	4.5%
3-5	66,207	280,117	18.5%	3.3%
6-9	11,192	142,625	3.1%	1.7%
10-19	6,133	173,693	1.7%	2.1%
20-49	1,905	125,512	0.5%	1.5%
50-99	3,176	771,832	0.9%	9.2%
100-499	1,383	959,900	0.4%	11.4%
More than 500	1,874	5,576,414	0.5%	66.3%
Total	357,381	8,406,521	100.0%	100.0%

Italian productive system is characterised by an extremely high number of units, showing a dualism even stronger than in the bovine sector. Analysing the last farm census of 1990

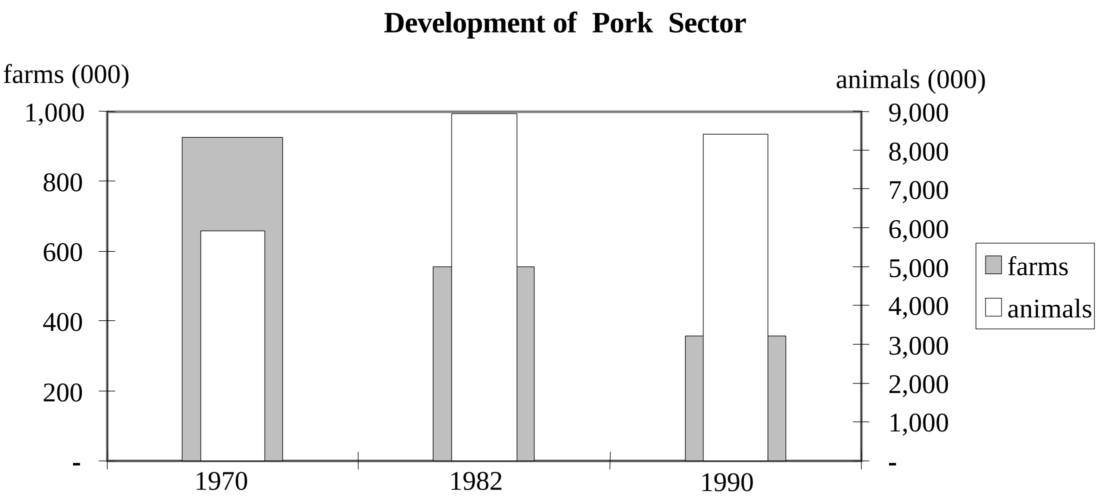
(Table 2.5; Chart 2.1) we can see that out of a total 357,381 pig-breeding farms, on one end 1,874 farms (0.4% of the total) with more than 500 head hold more than 2/3 of the overall resources; on the other end, farms with less than 10 head bred only 9.5% of the animals and yet cover 95.9% of the total.

Chart 2.1



A negative trend of farms is evident and their number has been cut of two thirds since 1970, even though over that same period a relevant increase in number of animals has been recorded, with a top peak around the 80's.

Chart 2.2



Lastly, in 1994 a sample survey on the productive system highlighted a large restructuring process which had taken place from 1990 to 1994, with a relevant decrease in farms of more than 60,000 units (-17%) and an increase of the average farm consistency (from 24 head per farm in 1990 to the current 29 head).

Another important characteristic is the high concentration of pig breeding within a specific area: at present the breeding of almost 6 million head is centred in the regions of the Padana Plain (in decreasing order: Lombardia, Emilia-Romagna, Piemonte, Veneto).

The above data show that pig-breeding system can be divided in two large typologies: a) big qualified farms are highly integrated in the market, concentrate in the Padana Plain and represent the core of the national chain; b) often through a non specialised production, small farms are closely linked with local traditions and mostly carry out self-consumption or follow local and often informal trade channels.

2.1.3. Meat Industry

Slaughtering sector

In the present section, data will be provided on development of slaughtered volumes (number of head and quantity of meat). The increase in number of the factories will be jointly analysed in section 2.2.3., being not possible to distinguish according to the slaughtered or processed breed.

In recent years, the pork sector has shown a diminishing trend of slaughtered head. In 1995, 11,991,925 units were equal to a 1.2% decrease higher than the previous year. At 70.8% animals are slaughtered in the regions of Lombardia, Emilia Romagna and Piemonte, where in addition to pig breeding and slaughtering also the processing stage is highly concentrated.

Table 2.6 – Pig Slaughtering Data *(Source: ISTAT, 1995)*

volumes slaughtered	1990	1991	1992	1993	1994	1995	var. % 95/94
number of animals	12,133,720	2,189,340	12,258,610	12,241,243	12,135,089	11,991,925	-1.2%
production (tons slaughtered animals)	1,333,050	1,332,803	1,341,901	1,371,346	1,369,255	1,345,552	-1.7%
average weight (Kg/head)	109.9	109.3	109.5	112.0	112.8	112.2	-0.6%
distribution of total slaughtered volumes by slaughter factories typology in percentage							var. % 94/91
Public slaughter factories	7.9%	8.6%	8.0%	8.1%	7.9%		-0.1%
private industrial slaughter factories	82.5%	81.7%	82.6%	83.0%	82.8%		0.2%
private artisanal slaughter-houses and premises connected with butcheries	9.5%	9.6%	9.3%	9.0%	9.4%		-0.1%

The resulting productive system strengthens the chain links within restricted areas, and gives rise to a peculiar organisation, i.e. "the agro-food districts". In addition to the rationalisation of several productive stages (for instance, weight loss consequent to long distance transportation can be avoided), a strong development of innovation ability has taken place, allowing high levels of competitiveness also in comparison with foreign productive areas.

Following the trend of highly industrialised countries, the processing industry plays a key role in determining the characteristics of a product before final consumption, with a consequent increase in number of the service performed. Bargaining power has consequently shifted from zootechnic firms to industrial sector.

For this reason and also because of the close link between slaughtering and processing firms, to analyse them separately is quite difficult and maybe a joint analysis of meat industry would be more appropriate.

Nevertheless, willing to separate the two stages we can say that the slaughtering sector[1] seems to be more concentrated than the processing sector. This latter are less dependent on the supplying sources and closer to cultural and gastronomic traditions.

At the end of the 80's, Emilia Romagna and Lombardia covered at 55% the meat industry employment. In Emilia Romagna the slaughtering sector was predominant and the firms showed outstanding characteristics of size and structure, well above the national average standard. In the two leading regions, however, processing stage revealed significant structural differences: in Lombardia industrial factories prevailed, in Emilia Romagna there was a large number of artisan activities usually concentrated within small areas ("the agro-industrial districts) producing typical and local products.

Probably in the near future the continuous development of transport will sharpen the crisis of the Italian slaughtering sector. The exporting countries will tend to market fresh meat and/or primary processed meat, i.e. those products that allow diversifying the supply thanks to their multiple targets, such as butcher's shops, factories producing cold meat and salami, seasoning stores, factories of ready-to-use products.

Already at the end of the 80's, private industrial plants slaughtered up to 80% (Table 2.6). The spreading of vertical integration and the related need of large slaughtering structures have further expanded this line of development.

The laws concerning the meat sector represented another strong stimulus for both establishment and concentration of private slaughtering and first processing factories. With the introduction of intervention on the market, producers have been compelled firstly to conform their equipment (EEC stamp) and later have been granted funds from the Community which made even stronger their predominant position on the market.

Vice versa, small firms and traditional butcher's shops turned to public slaughters for their supply of fresh meat or of meat to be treated in the laboratories belonging to the shops.

A further evidence of the existence of two different channels is given by the typology of livestock slaughtered in public and private factories: in the first the average weight is approximately 75 kg and 110 kg in the latter. Animals slaughtered in public slaughter-houses are for fresh consumption (the "light pig" for butcher's shops) and those slaughtered in industrial plants are taken to the processing industry (the "heavy pig").

In 1990, according to the ISMEA-Prometeia Observatory, slaughtered animals were subdivided as follows: at 73% they went to processing industry, at 8% to food catering service, at 7% to large-scale distribution, at 12% to conventional butcher's shops (Pieri e Venturini, 1995).

The "modernisation" of the pork sector has been by far more intense than in the bovine sector, showing high concentration also in private structures. Therefore, at the end of the 80's only at 6% the private treated a 59% rate of the slaughtered volume, while 200 slaughters (i.e. 30% of the plants) treated less than 1% (Zucchi, 1990).

Ultimately, according to a recent survey of the ISMEA (ISMEA, 1994) the sector of pork slaughtering is characterised by:

- a declining trend of the slaughtering units caused by competitive frozen and fresh foreign meat and by reduced demand of a few expensive fresh cuts;
- limited supply almost totally conveyed to processing industry (usually the product portfolio of slaughtering factories include only fresh/frozen meats and sausages);
- close interdependence between slaughtering and processing activities, such as it has become impossible to distinguish them;

---

[1] Owing to the strong development of zootechnical activity within the area of the Padana Plain.

- slaughtering costs higher than in the rest of the EU, consequent to the scarce uniformity of the animals which in turn is due to the low standardisation of genetic material, feed methods and preparations.

Processing Sector

The wide range of possible pork preparations makes it difficult to illustrate the development of the sector and therefore we will only touch on its essential traits.

Generally speaking, the processing sector of pork takes a relevant role within the wider meat chain on the ground of the remarkable consumption of by-products and also because treatments of a few products (e.g. Italian ham) are deep-rooted in the tradition.

Despite a recent trend towards higher productive concentration and a general industrial reorganisation, the distinguishing mark of the processing sector (factories producing cold meats and the like) still lies in strong structural fragmentation and large use of already slaughtered imported pork. In 1994, out of approximately 3,000 meat factories 2,000 were operating in the pork sector, while the artisanal activities still covered a relevant share: only at 25% they showed a structured organisation and, included in this rate, approximately 250 firms seemed to have a real industrial organisation (ISMEA). As above mentioned, the strong concentration on territory deserves to be noticed: more than 35% of the firms are located in Emilia-Romagna, almost 17% in Lombardia and c.a. 8% in Piemonte (Canali and Landini, 1995).

The Assica (trade association of meat operators) gathers a productive consistency high above the national average (86 workers per firm instead of the average 12), but when analysed it shows an analogous degree of production disintegration. In spite of their limited number, large firms (over 500 workers) have a relevant economic weight and actually 4% of the firms employ 31% of the workers; on the opposite, small firms (less than 50 workers) cover 61% of the total and 13% of the workers (ISMEA, 1996), and usually are linked to near markets.

The main causes of such a fragmentation are the possibility of producing highly specific food whose origin is not always sufficiently valued (for instance in terms of its typical characteristics) and also the scarcely relevant scale economies in the organisation of the productive process. Yet, any generalisation would be quite inexact, because the sector is characterised by high heterogeneity of products, location and innovation ability of the firm. Actually we can find firms with products of most ancient tradition and highly specific organisation (e.g. ham seasoning) as well as factories specialised in new food with a high content of services (ready-to-use dishes, usually frozen). Besides, in the sector there is also a large number of family firms with very traditional activities and handcraft style.

2.1.4. Retail

Fresh pork for consumption is marketed preferably through long channels (estimated rate 60-75%). Butcher's shops are still important for retail sales: according to the ISMEA, in 1990 pork sales scored 67% in butcher'shops and 33% in iper- and supermarkets. A further survey carried out by the ISMEA in 1994 on a sample of families (Table 2.7) shows that purchase at butcher's shops (47,4%) are strongerly diminishing than modern distribution (42,6%), even though they still represent the favoured channel of consumers. This implies overall costs, which surpass the European average cost of approximately 50% and weigh upon the final price at a percentage of 40%.

Table 2.7 - Sources of meat purchase *(ISMEA, 1996)*

	fresh meat	beef	pork	chicken
Outlet:				
Cash & Carry/Discount	2.3%	2.3%	2.3%	2.3%
Super/Ipermarket	43.6%	45.5%	42.6%	45.3%
Market	1.8%	0.9%	1.4%	2.8%
Traditional retail	48.6%	49.8%	47.4%	43.9%
Others	3.7%	1.6%	6.3%	5.7%

The analysis of pork processed products shows that the market is almost exclusively domestic; the firms which sells typical products abroad through the brokerage of wholesale importers and also to large-scale distribution are mostly located in Northern Italy.

Relationships between processing industry and large-scale distribution are increasingly close, even though wholesale dealers and retailers are still playing an important role, especially in Central Italy. The general trend, however, favours short trade channels and disappearance of intermediaries.

2.1.5. Trade

In § 2.1.1, the close dependence of Italy on pork supplying was pointed out. Despite the general immobility shown by the total flows of import (Table 2.8), a relevant change of the three classes (livestock, meat, processed product) has taken place: at first imported livestock and secondly frozen meat have downfallen, while imported fresh meat has increased by almost one third. All this is in line with the general trend to diminish the movement of livestock because of the related technological problems and law constraints, to which the relevant technological development of the "chain of cold" has to be added. This last in fact allows long distance transport of perishable foodstuff such as fresh meat.

Table 2.8 - Import of animals and pork *(Source: ISMEA)*

	1990	1991	1992	1993	1994	1995	avg. 91-95	%	var. 95/91
				volume (000 tons)					
Animals	150	135	135	118	81	77	116	17.3%	-94.8%
Fresh pork	359	389	456	464	476	505	142	65.8%	28.9%
Frozen pork	145	36	124	112	93	93	117	17.5%	-55.9%
Salami (pork/beef)	27	32	19	19	19	18	22	3.3%	-50.0%
*Total animals (-% bovines)**	*640*	*651*	*708*	*691*	*654*	679	671	100.0%	5.7%
				value (billions of liras)					
Animals	332	318	347	272	195	219	281	11.8%	-51.6%
Fresh pork	1,187	1,354	1,591	1,447	1,680	1,958	1,536	64.7%	39.4%
Frozen pork	539	501	507	408	350	414	453	19.1%	-30.2%
Salami (pork/beef)	140	173	95	99	103	107	120	5.0%	-30.8%
*Total animals (-% bovines)**	*2,198*	*2,253*	*2,539*	*2,225*	*2,327*	*2,697*	*2,373*	*100.0%*	*18.5%*

* Meat equivalents

As a general trend, import are growingly affecting the processing industry and in particular ham factories. At 99.5% the reference countries are members of the EU and a predominant role is played by the Netherlands (35%) followed by France (20%), Denmark (14%), Belgium and Luxembourg (12%). Import tends primarily to meet the demand from processing industry but also from modern distribution. In the pork chain, developed along shorter channels, the stage of fattening is lacking and unlike the bovine chain, fatteneres do not play any fundamental role.

After an increase in the second 80's which was brought about from the overproduction in the Netherlands and the consequent favourable price (Zucchi, 1990), the flow of "sucking pigs" (weight 25 kg c.a.) for breeding of "heavy pig", is currently experiencing a strong decline. Purchase of fattening animals is not common among breeders because of the related technological problems and today the most expanded type of Italian pig-breeding is the closed-cycle (breeding and fattening in a single farm).

As to import of meat, in the 70's and 80's the prevailing import (50-40%) consisted of frozen meat; vice versa, the current import is almost exclusively fresh (Zucchi, 1990, ISMEA, 1995). This change was due to improvement of the chain of cold along with processing and conservation technologies. A further change has occurred in the typologies of imported cuts (Zucchi, 1990), with a strong increase in cuts of hams, carcasses and secondary cuts (those included in the custom duties class “others”). In particular, the sector has been strongly affected by the import of fresh hams (in 1988 this covered at 58% the imported quantity) and this gives evidence of the strong dependence of Italian processing industry on foreign supply, as far as both traditional production[2] and booming demand of cooked products (such as hams) are concerned.

However, the spur of foreign supply is linked not only to the scarce quantity of Italian production but also to the favourable price of foreign product which is strongly homogeneous and highly standardised in quality and size.

The import of whole carcasses, however, is partially declining and single cuts are preferred, being more easily marketable. This fact implies a different consumption, i.e. consumer’s polarization on few cuts with a consequent loss of food diversification.

Propensity to export (Table 2.9) is negligible and confirms the structural weakness of Italian production, which is scarcely winning foreign markets. The only relevant part is covered by processed product, sharing 95% in value of export. The European market (81% of export mostly takes in these products in 1995). The flows include Germany (32%), France (25%), Belgium and Luxembourg (7%).

[2] It is important to distinguish traditional and typical productions, such as the DOP. By these last the origin of the raw materials is listed in the production set of rules and has precise territorial limits.

Table 2.9 - Animals and pork export *(Source: ISMEA, 1995)*

	1990	1991	1992	1993	1994	1995	avg. 91-95	distr. %	var. 95/91
				volume (000 tons)					
Animals	1	1	1	1	1	1	1.0	1.9%	0.0%
Fresh pork	1	1	2	2	5	7	3.0	5.7%	600.0%
Frozen pork	4	6	6	7	8	7	6.3	12.0%	75.0%
Salami (pork/beef)	40	42	36	43	51	57	44.8	85.1%	42.5%
*Total animals (-% bovines)**	*40*	*43*	*45*	*52*	*64*	*72*	*52.7*	*100.0%*	*80.0%*
				value (billions of liras)					
Animals	2	2	1	2	2	2	1.8	0.3%	0.0%
Fresh pork	4	9	9	10	20	34	14.3	2.5%	750.0%
Frozen pork	23	29	31	35	36	34	31.3	5.5%	47.8%
Salami (pork/beef)	424	461	449	542	611	734	536.8	95.1%	73.1%
*Total animals (-% bovines)**	*399*	*440*	*490*	*586*	*669*	*804*	*564.7*	*100.0%*	*101.5%*

* Quantitative data in meat equivalents

As for the bovine sector (see § 2.2.5), also in the hog sector the importance of cattle market is progressively diminishing and consequently in the reference cost formulation its role is no more central. On one side there is in fact the structural development of forward sectors obtained through concentration and co-operation which has come to favour direct exchange between producer and product receiver; on the other side, the heavier weight of "agreement" economy (introduction of rules for supply, for production etc.) supports direct transactions.

Table 2.10 - The Principal Cattle Markets In Italy (animals)
(*Source: Associazione italiana dei mercati bestiame)*

	1987	1992	var. 92/87	% of tot. 1992
Cuneo	11,728	9,817	-16.3%	49.9%
Lugo	12,030	5,951	-50.5%	30.3%
Oderzo	2,075	1,128	-45.6%	5.7%
Montichiari	554	854	54.2%	4.3%
Carmagnola	-	612	n. a.	3.1%
Modena	5,607	536	-90.4%	2.7%
Rovato	199	494	148.2%	2.5%
Vicenza	39	140	259.0%	0.7%
Parma	248	128	-48.4%	0.7%
Forlì	1,367	-	-100.0%	0.0%
Cremona	11	-	-100.0%	0.0%
Total	*33,858*	*19,660*	*-41.9%*	*100.0%*

Table 2.10 illustrates the marginal role cattle markets have in Italian cattle trade: exchanged volumes cover only a minimum share (0,2%) of the total slaughtered animals per year. Currently the cattle market is still important to small entrepreneurs who are prepared neither to face international market nor competition with large slaughtering industry.

The reorganisation has been even deeper with pork, because the highly industrialised breeding farms and their increased average size have favoured direct purchase of suckling pigs and sales of old animals. The closed cycle breeding farms have furtherly reduced the market, which at present supply only small farming for family consumption.

2.1.6. Interrelationships Along The Chain

The pork chain shows a high integration degree. The most common coordination form is given by agreements concerning both market (characteristics of the product, ways and terms of delivery, price guarantee, etc.) and production management, thanks to the constraints on the production process (e.g. agistment).

Anyway, this last form of integration, the agistment, seems to be insufficient, because of its inflexibility when market changes and because of the unbalanced bargaining power between farmers and integrating enterprises. The inter-professional agreement could strenghten this traditional kind of agreement, thanks to the influence which the association of producers could have. In Italy, however, associations are numerous and consequently small in membership, and do not exert any effective pressure.

The independence of the fattening process from farm production lead to an important enterpreneurial role of feed industry. Share-production contracts are largely diffused in pork fattening, where both suckling pigs and feed are supplied to the breeders by the feed industry, which still own the animals. Breeders receive a payment for each fattened head according to contractual agreements that usually regard yield/head and animals sanitary conditions**.**

In the sector there are also examples of direct vertical integration whereby a single firm controls two or more stages of the production process. The Gruppo Veronesi whose financial holding company directly controls feed factories, breeding farms, slaughtering and processing factories represents one of these. The company owns pork processing factories, while the breeding management is largely carried out by means of agistment. As a result, the group can rely upon a regular and uniform supply of animals with fixed price and terms.

2.1.7. Consumer's Demand

Owing to the closeness in the consumption of the different meat typologies, it seems more appropriate to illustrate them jointly, as we will see in § 2.2.7.

Anyway, there is strong evidence of a growing relevance of pork consumption: since the beginning of the 90's it has exceeded the consumption of beef, currently experiencing a steady decline. In 1995, out of total 83 kg per person, Italian consumption covered pork at 34.4% and beef at 30.6%. Chicken scored only a stationary 22% share.

Table 2.11 -Consumption per person of meat *(Source: Istat)*

	(kg. per-person/year)				
	beef	pork	chicken	others	total
1985	25.1	23.7	17.3	10.3	76.4
1986	25.5	24.1	19.2	10.3	79.1
1987	26.2	25.1	18.5	10.3	80.1
1988	26.3	25.5	19.0	10.7	81.5
1989	26.9	26.3	19.2	10.7	83.1
1990	26.6	27.0	19.3	10.8	83.7
1991	26.4	27.4	19.7	10.8	84.3
1992	25.9	28.8	19.6	11.5	85.8
1993	25.1	29.0	19.2	10.6	83.9
1994	24.8	27.1	19.0	11.3	82.2
1995	25.3	28.5	18.4	10.6	82.8
	(% of total)				
	beef	pork	chicken	others	total
1985	32.9%	31.0%	22.6%	13.5%	100%
1986	32.2%	30.5%	24.3%	13.0%	100%
1987	32.7%	31.3%	23.1%	12.9%	100%
1988	32.3%	31.3%	23.3%	13.1%	100%
1989	32.4%	31.6%	23.1%	12.9%	100%
1990	31.8%	32.3%	23.1%	12.9%	100%
1991	31.3%	32.5%	23.4%	12.8%	100%
1992	30.2%	33.6%	22.8%	13.4%	100%
1993	29.9%	34.6%	22.9%	12.6%	100%
1994	30.2%	33.0%	23.1%	13.7%	100%
1995	30.6%	34.4%	22.2%	12.8%	100%

2.1.8 Quality Policy Issues

Human safety. Being generally cooked, pork is not considered at risk in Italy. In order to avoid Toxoplasmosis, pregnant women are suggested to eat well cooked meat.

Human health.

Main concern of the consumer is linked with fats and cholesterol. The results of several surveys on consumers show that pork is considered the less healthy among meat typologies.

Animal health.

The most severe animal disease in pork production is the pig fever, which in the past caused very strong losses to Italian producers. This year, due to a diffusion of the disease in Holland, the Sanitary authorities set up a surveillance plan to monitor breeders' farms and to control imported pigs.

Meat quality

In the consumers' perception pork is often associated with taste and pleasure, balanced by the awareness of a relatively low healthiness, so that often pork consumption is lived as "a transgression". Genetic selection and feed have reduced fat content and improved fat composition, so for many firms the problem is how to correct such a prejudice.

2.2. The Structure Of the Bovine Chain

2.2.1. Supply by Source

According to the ISMEA estimate, **national production** (Table 2.12, 2.13, 2.14) reached 945,000 tons in 1995 (1.2% more than the previous year) and showed a stationary trend when compared with the last ten years. The sector, however, is characterised by strong dependance on import and fundamental inability to fill this gap. Only in recent years, simultaneously with the shrinkage of consumption per-person, it showed signs of recovery: in 1995 the level of self-sufficiency settled around 66% in quantity and 60% in value, with an increase of respectively 10% and 5% more than in 1991. The causes are partly due to the chronical structural weakness of the primary sector and to the role of the communitary policies, which followed the logic of specialised production areas and actually favoured the continental ones, naturally oriented to this production.

Owing to both the unfavourable orographic and piedmont-climatic conditions and the limited available grazing land in comparison with other EU countries, the Italian production is characterised by a remarkable structural weakness and consequently by high production costs.

As already said, despite a few signs ofreduced dependence caused by dropping consumption rather than by development of the primary productive structures, foreign supply is so far quite strong and involves a large number of enterprises (approximately 150). A third of these are organised at industrial level (Gatti, Pecci, Varini, 1994).

Two major **import** flows can be detected: livestock and carcasses. It has to be stressed that in 1990 the Italian import of livestock topped highest in the world and the flow came (and presently is coming) from the EU countries and from Eastern Europe. The imported typologies are substantially two: bovine animals for restalling and for slaughter.

Exports are unsubstantial and since 1992 have even reduced. The most important voice is represented by meats, which however in 1995 suffered from a decrease of 25% than in the previous year (ISMEA, 1995).

Table 2.12 - The Balance Of the Bovine Chain (billions of liras) *(Source: Ismea)*

	avg. 87-91	1992	1993	1994	1995*
saleable gross production	5,118	5,259	5,878	6,222	6,525
import	4,262	4,551	4,623	4,688	4,735
available quantities	9,380	9,810	10,501	10,910	11,260
export	277	647	536	463	412
resulting consumption (billions)	9,103	9,163	9,965	10,447	10,848
expenditure per-person (000 liras)	161	161	175	183	189
rate of self-supplying (%)	56.2%	57.4%	59.0%	59.6%	60.1%
balance	-3,985	-3,904	-4,087	-4,225	-4,323
movement	4,539	5,198	5,159	5,152	5,147

*estimate

Table 2.13 - The Balance Of the Bovine Chain (000 tons) *(Source: Ismea)*

	avg. 87-91	1992	1993	1994	1995*
saleable gross production	871	949	913	934	945
import	735	735	632	617	571
available quantities	1,639	1,690	1,612	1,568	1,516
export	97	214	137	120	83
resulting consumption**	1,541	1,476	1,475	1,447	1,433
consumption per-person (kg)	27.1	26.0	25.9	25.3	25.0
rate of self-supplying (%)	56.5%	64.3%	61.9%	64.5%	65.9%
balance	-638	-521	-495	-496	-488
movement	832	949	769	737	654

*estimate, **including variation of stock

Table 2.14 - The Balance Of the Bovine Chain (trend) *(Source: Ismea)*

liras ==>	var. '95 / avg. 87-91	var. '95 / '94	tons ==>	var. '95 / avg. 87-91	var. '95 / '94
saleable gross production	27.5%	4.9%		8.5%	1.2%
import	11.1%	1.0%		-22.3%	-7.5%
available quantities	20.0%	3.2%		-7.5%	-3.3%
export	48.7%	-11.0%		-14.4%	-30.8%
resulting consumption	19.2%	3.8%		-7.0%	-1.0%
expenditure per-person	17.4%	3.3%	consumption (kg/per-person)	-7.7%	-1.2%
rate of self-supplying (%)	3.9%	0.6%		9.4%	1.4%
balance	8.5%	2.3%		-23.5%	-1.6%
movement	13.4%	-0.1%		-21.4%	-11.3%

2.2.2. Farm Production

In 1994 the national agricultural production reached 6,222 billion liras, scoring a 5.9% higher increase than in the previous year (Table 2.12, 2.13). According to the estimates of the ISMEA it rose up to 4.9% in 1995. A general increasing trend has characterised quantity over the last five years, although percentage rates have been lower.

The bovine resources represent the productive potential of the sector and yet a decrease of 4.3% in the total amount has to be recorded (Table 2.15). In 1995 the total number of head amounted to 7,207,000, showing a countertrend if compared with the substantial steadiness in the EU. On the whole, the number of head which potentially represent the meat production is approximately 2,500,000.

Table 2.15 - Number of Bovine Animals (000 head) *(Source: Ismea)*

		Italy			UE 15		I/UE
	1994	**1995**	**var. 95/94**	**1994**	**1995**	**var. 95/94**	**1995**
Heads < 1 year	2,292	2,180	-4.9%	26,030	25,965	-0.2%	8.4%
for veal production	370	330	-10.8%	4,026	3,855	-4.2%	8.6%
Male 1-2 years	1,634	1,571	-3.9%	18,656	18,679	0.1%	8.4%
Male > 2 years	85	85	0.0%	2,429	2,393	-1.5%	3.6%
Female 1-2 years	708	709	0.1%	9,109	9,357	2.7%	7.6%
Female > 2 years	445	435	-2.2%	5,052	5,052	0.0%	8.6%
Cows > 2 years	2,994	2,866	-4.3%	33,800	33,778	-0.1%	8.5%
dairy	2,275	2,150	-5.5%	22,816	22,384	-1.9%	9.6%
others	719	716	-0.4%	10,984	11,379	3.6%	6.3%
Total	**7,533**	**7,207**	**-4.3%**	**86,868**	**86,467**	**-0.5%**	**8.3%**

The bovine breeding sector is still characterised by a relevant structural dualism: on one side at 51% small farms (with no more than 10 head) are breeding a number of animal equal to 7% of the national zootechnical resources. On the other side, farms with beyond 100 animals cover a percentage of 6%, holding 48% share of the Italian zootechnical resources (Table 2.16, Chart 2.3).

Chart 2.4 clearly shows the deep reorganisation of the sector over the last 25 years. Since 1970 the decrease in number of the farms amounted to the 2/3 of the total, with a reduction rate of the zootechnical resources equal to 12%. The concentration and specialisation process in the farms was followed by gradual desertion and affected all the sectors of Italian agriculture. An immediate consequence has been the increase in average number of bred bovine animals.

Table 2.16 - Stock farms, hog farms and number of animals (1990)
(Source: Istat)

Number of animals per farm	Farms	Animals	%Farms	% Animals
1-2	56,669	91,835	17.7%	1.2%
3-5	65,661	256,427	20.5%	3.3%
6-9	50,442	366,616	15.8%	4.7%
10-19	59,825	804,911	18.7%	10.4%
20-49	52,075	1,568,915	16.3%	20.2%
50-99	20,470	1,376,147	6.4%	17.7%
100-499	13,499	2,405,371	4.2%	31.0%
more than 500	925	888,837	0.3%	11.5%
Total	*319,566*	*7,759,059*	*100.0%*	*100.0%*

Chart 2.3

Size distribution of bovine farms (1990)

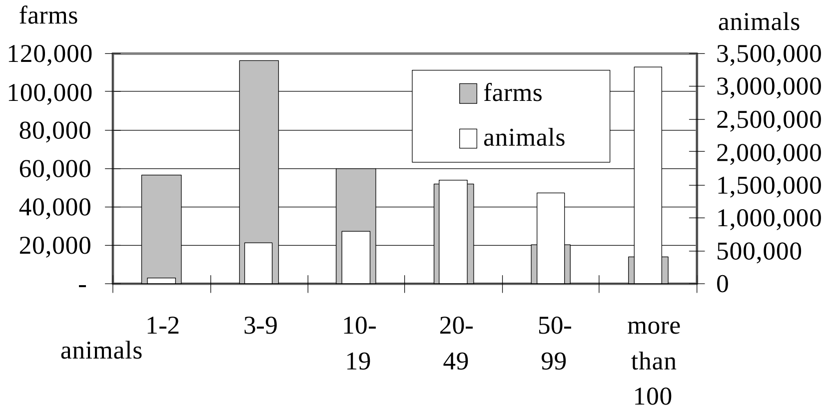
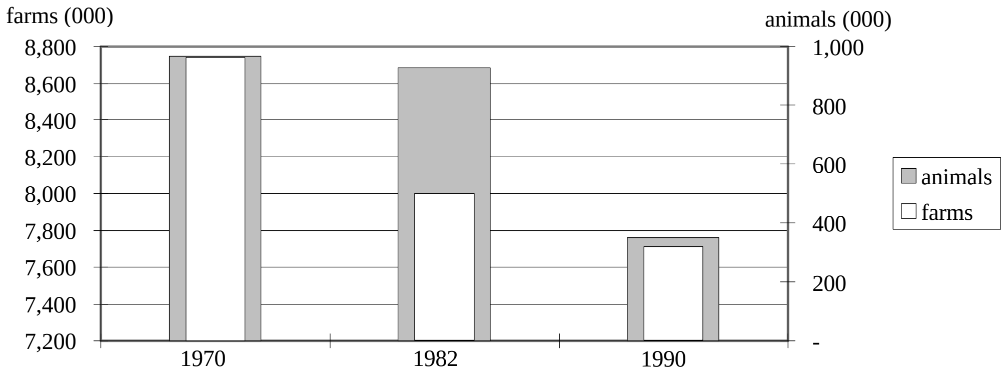


Chart 2.4

Evolution of bovine sector



A 1994 sample survey of the ISTAT on the farm structures shows that this reorganisation process has become even more intense, since over the last 4 years more than 52,000 farms (16%) have been closed (the present number amounts to c.a. 267,000) and in particular medium sized and small breeding farms with less than 50 head were compelled to cease their activity (ISMEA, 1995). As a matter of fact, the average consistency has leaped from 24 animals in 1990 to the present 28 animals.

The distribution of the bovine zootechnic resources is rather unequal over the Italian territory. A strong concentration has to be recorded in the regions near to the Po river (Lombardia, Emilia-Romagna, Veneto and Piemonte), where the breeding of meat cattle has become highly qualified and takes advantage of the opportunities offered from a relevant supply of local calves for restalling from the near milking farms. For example almost the whole bulk of white veal is produced in Veneto. In 1994, 22% of the PLV meat was produced in Lombardia, 15% in Piemonte, 14% in Veneto, 11% in Emilia Romagna for a total amount equal to 62%.

As to other Italian regions, bovine meat zootechnics are largely represented in the central regions (Tuscany, Umbria, Marche, and Lazio), although here the organization is totally different. Intensive farms are similar to those of the Padana Plain, and yet many farms follow productive processes at complete cycle (cow-calf line) which show more extensive characteristics.

The present productive structure of bovine meat can be referred to a few breeding typologies:

- *fatteners* ➔ the single-product farms, specialized in the production of beef, which have imposed thanks to their industrial organization, focusing exclusively on the fattening with a feed based on grain-maize insilate. These firms purchase restalling calves either from the milk firms or from abroad. In the first case, they are Frisian calves or crossbreed between Frisian and meat breed, and the final beef weights approximately 400-450 kg.; in the second case, they purchase calves of qualified meat breeds (Limousine, Charrollaise, etc.) that reach a higher slaughter weight of about 550-600 Kg.
- *estensive farms* ➔ single-product farms specialized in the production of beef, which follow a closed productive line (cow-calf) with stronger traditional characteristics. These are especially present in Central Italy with local breeds (Chianina, Marchigiana, Romagnola);
- *milking farms* ➔ where meat is only a "by-product". So far these have become

marginal, because the required high degree of qualification urges the breeder to specialise either in milk or meat production. Therefore they prefer to sell the wained cows to the meat farms or directly on the market.

Even though the sector is identified by fragmentation of producers and supply, the growing need from producers, slaughterers, distributors, etc. to control and guarantee both origin and quality to the consumer, brought about vertically oriented integrated solutions with the most various characteristics. There are, for instance, private industrial groups at national level purchasing farms (through corporate societies) in which they carry out fattening activities or stipulating agreements of supply with private firms which also provide for breeding methods. The most important Italian private group (In.Al.Ca), for instance, controls the production of c.a. 200,000 head per year both directly (property of the farms) and undirectly (supplying agreements).

Other relevant examples of vertical integration or rather of co-ordinated production are given by the Associations of producers or the co-peratives, such as the Consorzio Carni Bovine Garantite which holds a membership of approximately 4,500 breeders by means of several sister associations (Consorzio carni Bovine Documentate, Co.Na.Zo., Co.Al.Vi, CCBI-5R). In this case, the breeder’s task is that of conforming to the methods which are defined in the rules of production.

2.2.3. Meat Industry

From the data of the 1991 industry census (ISMEA, 1996), meat industry concentrated at 6.1% firms and at 12.1% workers of the whole food industry. When compared with the previous decade, the situation appears to be quite stationary, since at present 3,578 firms are operating in the sector out of a total of 58,000. The productive system shows still today marked characteristics of an artisanal nature (Table 2.17). In particular, (Table 2.18) despite some difficulties in comparing 1981 and 1991 data which were due to a change in the classification codes of productive activities, a shrinkage in the slaughtering units was evident (-4.4%), along with a remarkable increase of workers (+4.6%).

Table 2.17 - Firms, local units and workers in the meat processing Industry in Italy (1991)
(Source: Istat, 1995)

	firms		local units		employed	
	total	**craft-firms**	**total**	**craft-firms**	**total**	**craft-firms**
Production of meat and derived productions	1,475	778	1,754	833	15,715	3,158
Freezing conservation of meat	384	118	423	119	7,911	1,225
Production of chicken and derived products.	261	85	305	88	10,132	652
Freezing conservation of poultry	23	1	31	1	952	15
Meat products	1,615	919	1,874	961	23,290	3,832
TOTAL	**3,758**	**1,901**	**4,387**	**2,002**	**58,000**	**8,882**

Table 2.18 - Evolution of different firm typologies between 1981 and 1991
(Source: processed Istat data)

	firms		employed	
	1981	**1991**	**1981**	**1991**
Slaughter industry	43.6%	39.2%	22.5%	27.1%
Conservation and processing Industry	56.4%	60.8%	77.5%	72.9%
TOTAL	**100%**	**100%**	**100%**	**100%**

Slaughtering sector

The trend (Table 2.19) is slightly declining in number of slaughtered animals, even though in quantitative terms a slight increase can be recorded (+0.8%). An interesting characteristic which has to be highlighted comes from the advancing concentration of slaughtering (as well as processing) activities in the regions of Northern Italy (in particular Emilia Romagna, Lombardia, Veneto and also Piemonte) which have been favoured by both the strong zootechnical activity and the relative short distance from foreign markets for imported animals. In 1994 cattle was slaughtered at 71.5% in those regions, at 51.7% of which in private activities (ISMEA, 1994).

Table 2.19 - Cattle and Buffalo Slaughtering Data *(Source: ISMEA, 1995)*

	1990	1991	1992	1993	1994	1995	var. % 95/94
head	4,884,360	4,955,270	5,067,210	4,862,951	4,755,004	4,732,133	-0.5%
production (tons of slaughtered animals)	1,165,350	1,181,572	1,217,542	1,187,744	1,171,219	1,180,935	0.8%
average weight (Kg/head)	238.6	238.4	240.3	244.2	246.3	249.6	1.3%
% distribution in volumes by slaughter-house typology							var. % 94/91
public slaughter-houses	29.7%	31.7%	31.2%	30.6%	30.0%		0.3%
private industrial slaughter-houses	51.7%	49.4%	50.7%	50.3%	51.7%		0.0%
private artisan slaughter-house and premises connected to butcheries	18.6%	18.9%	18.1%	19.2%	18.3%		-0.4%

Generally the slaughtering sector appears to be highly fragmented, even though in recent years reorganisation has been compelled to quicken by the obligations set up by the EU sanitary rules. Requiring relevant financial resources, which result unsustainable to the small and medium, firms (Italy took advantage of a special delay until 1996), those rules brought to the ending of the less efficient ones. From the 7,000 and more slaughterhouses in 1993 (table 2.20), the number was cut down to about 3,000 in 1996.

The Italian situation is really peculiar in comparison with the other EU countries, in which the reorganisation has started quite early. In 1990 40% of slaughters within the EU was located in Italy. Such a relevant rate was due to an old law of the 30's, which provided for the establishment of a slaughterhouse in each municipality with a population exceeding 6,000 inhabitants. Until the 90's really small structures were still operating, most of which with a production capacity lower than 5,000 q of dead weight per year. In 1990, for example, out of a total number of 2700 slaughterhouses, 1900 were public and processed less than 25% of domestic production (Gonanno et al., 1995). At present, public slaughterhouses should be reduced of 50% with a steady rate of slaughtering. They are located in the regions of Southern Italy, where there are no private industrial slaughter factories.

Table 2.20 - Slaughterhouses, processing plants and shops in 1993 *(Source: Ismea)*

public slaughterhouses	1,400
private plants	1,100
artisanal slaughterhouses and related premises	4,700
processing and manufacturing firms	3,000
shops (80% traditional)	55,000

Table 2.21 - Slaughtering plants and European regulation *(Source: Assocarni)*

	31/12/1995		*31/12/1996*	
Typology	**Number**	**Weight %**	**Number**	**Weight %**
Slaughters with EEC stamp among which :	*177*	*5.8%*	*221*	*6.9%*
private	173		n.a.	
public	4		n.a.	
Factories with limited capacity or without delay among which:	*2,500*	*82.3%*	*2,889*	*90.2%*
private	2,145		2,261	
public	355		628	
Factories with delay of which:	*360*	*11.9%*	*93*	*2.9%*
private	279		n.a.	
public	81		n.a.	
Total:	**3,037**		**3,203**	

As to conformity with the EU rules, public slaughters must be in order within the 30th of June 1997, while for the private terms have already expired on 31/12/95. According to the surveys in December 1996 (Table 2.21), 221 own the EEC duty stamp (they were 127 in 1992 and 132 in 1993) and are located for the most part in Northern and Central Italy, where approximately 90% of animals is slaughtered (Agrisole, 1997).

It must be underlined that the slaughtering of less common animals (such as sheep, goats and horses) is carried out in public factories, while private industrial structures concentrate the slaughtering of the two most important species: in 1994 they covered 51% of bovine head and 83% of pork.

Slaughtering factories are steadily and quickly developing, owing to both the compulsory obligations and the deep changes in the chain (adjustment and reorganisation of equipment, product and process innovations, agreements and integration among firms, etc.)

A sector, which in the 80’s was characterised by low concentration and high dispersion, is gradually becoming characterised by large industrial and private plants. Yet the concentration levels of other European countries wait so far to be reached. According to recent statistics, the concentration index of the first six slaughtering firms in the bovine sector scores only 16%, while the Nederlands and Germany reach 40% (S. Gonanno, D. Mambriani, 1996).

A few important factors concerning the characteristics of the slaughtering head are:

- the increase of average slaughtering weight of beef which is a consequence of the increased import of qualified breed;
- the strong demand of veal which is obtained from the so called calf with white meat (bred up to 200-220 kg. with liquid feed) which actually damages the increase of the domestic production (according to a few estimates, the rate of self-supplying could rise up to 10% if beef were produced instead of white meat veal):
- a remarkable number of fully-grown animals (milk cows) due to the communitarian policies;
- a substantial difference in the slaughtering weight between industrial private factories and public slaughterhouses, since these last process the animals directed to the traditional butcher's shops which prefer smaller animals (for example, females).

In spite of the low concentration of the sector, in Italy there are private firms with relevant dimensions. With 188,000 head slaughtered in 1993 (the incidence on the national total, however, rated less than 4%), In.Al.Ca is the Italian leading firm, and belongs to the Cremonini group together with Ultrocchi Carni and Carnemilia. These three companies reach an annual turnover of 1,200 billion of lire, a slaughtering capacity of 500,000 head/year and a boning capacity of 500 tons/daily.

Two other important companies in term of turnover resulted to be the Beca (which however bankrupted in 1994) and the cooperative Unicarni belonging to the Unibon-Conazo group. The Unicarni, after the combination with other slaughtering cooperatives, is undergoing a structural and technological restructuring. It holds well known trademarks (Ciam, Asso, Integra and La Buona Macelleria) (Table 2.21).

Table 2.21 - Fresh beef and pork: leading firms in the sector *(Source: ISMEA)*

	Turnover (billions of lire)	
	1992	1994
Inalca (Cremonini) (MO) (consolidated)	n.a.	1.151
Inalca spa (MO) (Cremonini)	655	569
Beca spa (BO)(1)	471	-
Europork spa (MO) (Cremonini)(2)	390	397
Unicarni scrl (RE) (Unibon-Conazo)	207	228
Guardamiglio Carni Spa (MI)	115	191
Montorsi F. & F. spa (MO) (Veronesi)(2)	165	190
Ind. Macellazione Ghinzelli spa (MN)	194	189
Martelli F.lli spa (MN)	173	157
Ultrocchi Carni spa (MI) (Cremonini)	157	152
Pegognaga - Macello Coop. a.r.l. (MN)	121	150
ICAR spa (RI) (Cremonini)	212	148
Fratelli Schellino spa (VI)	178	146
Bertana Srl (BG)	171	145
Cmlc scrl (BO) (Unibon)	150	131
F.lli Miragoli spa (CR) (Cremonini)	102	130

(1) bankrupted in June 1994
(2) the turnover is comprehensive of the production of salami and sausages

On the whole, the Italian situation seems to be characterised by a relevant complexity: side by side with the modern industrial groups such as the Cremonini and the Unicarni-Conazo which pursue a total quality plan by managing the whole productive process, from animal breeding to canned beef, there coexist also artisanal businesses which are yet very far from integration in the quality control.

Processing sector

To deal separately processing and slaughtering sectors is extremely difficult, being the two nearly correlated at managing level. Anyway, from the most recent works the very low development of additional processing is evident, since the processing industry only dissect the carcasses and sell them in sides or quarters.

The results of a survey on 11 outstanding italian slaughtering firms show that in 1991 the 3/4 of slaughtered meat were sold in sides or quarters, 18% in anatomic or portioned cuts (the incidence of the second is very low), 8% was sold to industry and only 6% was furtherly processed in-house (Gatti, Pecci, Varini, 1994). According to other Sources, only 5% of bovine meat is assigned to industrial processing in the whole Country (Largo Consumo, 3/96).

The Gruppo Cremonini and the Multifin group are the leading firms. The first one operates in both bovine and pork sectors, producing yearly 10,000 tons of hamburgers for fast food chains, both national and foreign. It is also present on the Italian market with the trademark Montana for canned meat (production: c.a. 40.000 tons per year). The other group is active in the slaughtering, processing and trade sectors of bovine meat (Largo Consumo, 2/94).

From survey carried out in the 90's (Zucchi, 1990), meat industry show remarkable difference in profits between slaughtering and processing sectors. Slaughtering activities resulted in limited entrepreneurial profits (gross proceeds, net of personnel expenditure, were about 2.8%) and the sector was not attractive to entrepreneurs. In order to change the unfavourable conditions, slaughtering factories tried to develop in-house meat processing, such as to increase added value; on the other end, they tried to squeeze expenditure by introducing mechanised systems.

Processing activities achieved remarkably more interesting performances (gross proceeds at 8.3% and an increasing trend). The causes are to be found in the progressively change of demand and food styles, increasingly requiring products with added services (processed and elaborated food), which has allowed them to stay on the market and to further develop the sector.

In particular, several medium and small sized firms are currently operating in the sector, but the present situation is likely to change within the next two years: through the forecast entry of foreign enterprises in our country, competition will grow harsher and, at the same time, the increasing bargaining power of modern distribution will strongly affect prices and contractual conditions.

2.2.4. Retail

The market of meat, and particulary of beef - centered on fresh product - is an internal market and the distribution system is still highly retail-oriented, even though modern distribution (large-scale retail trade) is winning progressively increasing sales shares. In 1996 its market share covered 45.5%, traditional retail sales 49.8%%, catering 2.3% (Table 2.7). The expansion is simultaneous to a general squeeze of traditional butcher’s shops and a general acquisition of market shares by the super- and ipermarkets. The number of butcher’s shops decreased from 60,000 units in 1987 to 48,000 in 1995, while sales points of modern distribution currently amount to 6,200 (Table 2.22). In particular, the growing number of large distribution sales points (from 612 to 1,900 over 6 years) gives evidence of their current upward trend.

Table 2.22 - Forecast trends for supermarkets and ipermarkets number
(Source: Nielsen data, Informarket, Agra and DM experts' opinion)

	Supermarkets from 800 to 1000 mq		Total supermarkets	Ipermarkets
	n°	% on the total		
1989	612	18	3,400	76
1991	946	22	4,300	105
1993	1,430	28	5,100	210
1995	1,900	32	5,900	300

Unlike other food products, the traditional retail trade still holding large market shares can be justified by the consumer perception of quality in a still undifferentiated product such as fresh meat. Quality can still be conveyed only through the trust relationships between client and butcher. And this factor is so important to the consumer that, unlike the consumption trend to save on purchasing time, he sticks by his favoured butcher's shop when buying fresh meat. This reason is well known to the large distribution chains, which have included counter assistants in order to gain more market shares.

As to the diffusion of packaged bovine meat (2% of the overall sales) which may allow to carry out trademark policies, the "test" stage is not ended yet because specific rules are lacking and consumers are still suspicious towards innovation for red meats.

The sales volume of boned bovine meat can be taken as indicating a rather limited diffusion of innovative products; including both frozen (approximately 15,000 tons, especially hamburgers) and chilled meat it covers 10% of total sales.

2.2.5. Trade

The Italian production is characterised by a remarkable structural weakness and consequently by high production costs. In addition to this factor, there is also the inevitable import of calves for restalling because of the reduced domestic availability. In fact, the main national Source of supply for restalling calves is given by the dairy sector (i.e. calves and heifers that are not used for internal re-covering) and its present crisis is affecting also the beef sector.

Therefore we can state that until recently both growing consumption and organizational factors such as transport and logistics, which limited the levels of supply, concealed these «inefficiencies». At present, however, favourable conditions for the Italian products have terminated and foreign competition has become stronger. The consequent effects on the sector can be imposing if adequate countermeasures are not provided.

The imported typologies are substantially two: bovine animals for restalling and for slaughter (Table 2.23).

Table 2.23 - Bovine and Bovine Meat Import Between 1990 and 1995 *(Source: Ismea)*

	Volume (thousand of tons)								
	1990	1991	1992	1993	1994	1995	average 90-95	distr. %	var. 95/90
Cattle for restalling	130	139	130	134	139	129	134	19.5%	-0.8%
Cattle for slaughter	336	355	370	257	235	231	297	43.5%	-45.5%
Beef	429	494	430	372	360	332	403	58.9%	-29.2%
Frozen beef	29	36	48	32	37	24	34	5.0%	-20.8%
*Total**	*714*	*802*	*769*	*633*	*616*	*571*	684	*100.0%*	-25.0%
	Value (billions of liras)								
	1990	1991	1992	1993	1994	1995	average value	distr. %	var. 95/90
Cattle for restalling	530	532	530	659	706	718	613	13.5%	26.2%
Cattle for slaughter	1,090	1,119	1,211	1,039	1,068	1,102	1,105	24.3%	1.1%
Beef	2,440	2,684	2,545	2,630	2,640	2,633	2,595	57.1%	7.3%
Frozen beef	134	158	172	146	180	165	159	3.5%	18.8%
*Total**	*4,194*	*4,493*	*4,551*	*4,623*	*4,688*	*4,735*	4,547	100.0%	11.4%

*) meat equivalents

Any remarkable change occurred only over the last twenty years, since the meat import has progressively substituted the livestock import and the incidence of imported frozen meat has been reduced. From 26% in 1970 it has dropped to the present 3% (Zucchi, 1990). This change was essentially due to the improvement of logistic organization of the chain in the supplying countries; with a stronger bargaining power, these last are able to keep a higher added value. And also the protectionist measures of the Eu affected the situation, having caused the frozen south-american products to disappear from our markets.

The UE members, represent for the supplying countries more than 90% with a strong prevalence of France (43%), followed by Holland (14%), Germany (11%) and Denmark (5%). Among the third countries only import from Argentina (2,4%) is remarkable, in particular frozen and corned meat (a category which covers only 3% of imports).

In reference with the five years from 1990 to 1995, carcasses (3% frozen) covered approximately 60% in volume and 64% in value of imports. This trend is dropping in quantitative terms (-21%) and is increasing in pecuniary terms (+19%). The main reason comes from the devaluation of the lira, but also from a shift in the typologies of imported cuts (i.e. from the sides to most valuable cuts such as saddles and rear quarters). In 1995 countries of origin of fresh meat were the Nederlands (25%, especially milk calves weighting 200-250 kg.) and France (23%) and both countries are showing an increasing trend; then Germany (16%) and Denmark (9%) followed. Meat import from England (8%) and Ireland (5%) has dropped consistently.

As to product typologies, Italy imports the most valuable parts, such as saddles (46,4%) and rear backs (35,6%), especially from Germany; the sides of beef from the Nederlands cover the remaining amount.

As to import of livestock, bovine animals for slaughter amounted to 24% in value and 44% in volume of the 1990-95 imports, with a strong progressive reduction (-45%) in volumes; over that same period, cattle for restalling represented 13% in value and 19% in volume, yet showing a certain stagnation in the quantitative flows (-0,8%). An increase of approximately 26% of the values was mainly due to the devaluation of the lira. The first supplying country was France, with 91% of cattle for slaughter and 61% for restalling; as to this last, 15% of import came from Polland (ISMEA, 1995).

According to the analyses of the Producers and Manufacturers Associations (Assocarni), the diminishing trend to import livestock[3] is only "virtual", because the official data do not record the "black" import following the avoidance of VAT rate by the Italian importers (today 16% but until recently 19%) which is much stronger than in other EU countries[4]; according to their estimates, black import covers 20% of the total of imported livestock.

Exports are unsubstantial and since 1992 have even reduced (table 2.24). The most important voice is represented by meats, which however in 1995 suffered from a decrease of 25% than in the previous year (ISMEA, 1995). The export flow is mostly oriented within the EU (77% of the total amount) and in particular towards France (35%), Greece (13%) and Germany (11%); the remaining 10% towards the East-Europe countries.

---

[3] This cause is valid also in the pork sector.

[4] From the surveys of the Associations of producers in the Eu, the average VAT is equal to 6%.

Table 2.24 - Bovine Exports *(Source: Ismea)*

	volume (000 of tons)								
	1990	1991	1992	1993	1994	1995	average 91-95	distr. %	var. 95/91
Cattle for restalling	1	1	1	1	1	1	1	0.8%	0.0%
Cattle for slaughter	1	1	6	6	9	12	6	4.5%	91.7%
Beef	17	39	46	31	38	34	34	26.5%	50.0%
Frozen beef	49	11	118	69	44	26	53	40.9%	-88.5%
*Total**	*68*	*152*	*214*	*137*	*121*	*83*	129	*100.0%*	18.1%
	value (billions of lire)								
	1990	1991	1992	1993	1994	1995	average value	distr. %	var. 95/91
Cattle for restalling	5	6	3	4	9	9	6	1.4%	44.4%
Cattle for slaughter	2	2	11	15	26	29	14	3.3%	93.1%
Bovine fresh meats	60	120	153	128	168	170	133	30.8%	64.7%
Frozen bovine meats	134	208	247	221	157	143	185	42.7%	6.3%
*Total**	*202*	*335*	*647*	*536*	*464*	*413*	433	100.0%	51.1%

*) meat equivalent

Frozen meats, also experiencing a lowering trend, are represented by the sales of overproduction stocked by the intervention organizations and are addressed to Russia, Saudi Arabia and Egypt.

As to the supplying Sources, today most cattle pass directly from stalls to slaughtering plants, thanks to the direct agreements of purchase with the large farms for fattening and, according to 1992 estimates (Della Casa, 1992), only 15% of cattle is traded on the wholesale markets. These last, even though with a strongly reduced role, are still important as to indication of cost and allow to concentrate the sales of a small number of head in stocks, thus representing an important reference for small firms.

According to statistics, in 1992 cattle markets were 203, of which 43% in the North, 16% in the Centre and 42% in the South of Italy; 46% had weekly frequency, 5% monthly and 49% by the season. Out of the 203 markets, 14 carry on a significant role in the respective meat chains and only 4 or 5 are economically relevant or able to affect the relationship trend along the chain. Only a most reduced rate (less than 15% according a 1990 survey of the ISMEA) of traded cattle pass through the markets and is concentrated only in those located in the areas where zootechnics are much spread (Padano-Veneta Plain).

Modena is the only seat where a flow higher than 100,000 bovine head per year has to be recorded (table 2.25). Its key role is not only national but also international and the quotation recorded on this market especially for the bovine sector reflect the trend of national and european markets more precisely than the local ones. This market has thus become a central junction in the chain: because of the progressive concentration of the main operators on this place, in addition to the trade bargaining there is also a huge exchange of information about the agreements which are often reached elsewhere. Ultimately, the Modena market is adjusting to the growing global relationships and is becoming increasingly similar to a service centre or a “commodity Exchange”, whereby phisical attendance of the goods is no more unrenounceable requisite for trading and it is possible to purchase on terms.

Table 2.25 - The principal cattle markets in Italy (traded animals)
(Source: Associazione italiana dei mercati bestiame)

	cattle		trend %	conc.%
	1987	1992	92/87	1992
Modena	157,994	147,885	-6.4%	26.3%
Parma	100,844	71,852	-28.7%	12.8%
Vicenza	23,905	57,582	140.9%	10.3%
Moncalieri	-	53,129	-	9.5%
Cuneo	69,224	49,016	-	8.7%
Montichiari	21,409	40,533	89.3%	7.2%
Oderzo	22,759	24,335	6.9%	4.3%
Carmagnola	-	19,830	-	3.5%
Cremona	12,893	18,865	46.3%	3.4%
Chivasso	55,167	15,464	-72.0%	2.8%
Padova	10,826	14,538	34.3%	2.6%
Fossano	19,752	13,824	-30.0%	2.5%
Saluzzo	2,291	10,500	358.3%	1.9%
Rovato	6,671	9,985	49.7%	1.8%
Reggio Emilia	3,320	6,796	104.7%	1.2%
All. Friuli	-	4,291	-	0.8%
Forlì	3,151	1,548	-50.9%	0.3%
Bologna	28,960	1,453	-95.0%	0.3%
Torino	2,200	-	-100.0%	0.0%
Total	541,366	561,426	3.7%	100.0%

Other important markets are Parma (suckling calves), Cuneo (Piemontese breed), Vicenza and Montichiari; each of them with its own peculiarity as to the cattle on trade.

Over the years, the bovine typologies on the market have radically changed and at present it is possible to find: a) animals for immediate slaughter (fully-grown animals and discarded cows); b) animals for future slaughter (restalling calves). The rate of restalling sucking calves has strongly reduced and breeder animals are totally absent. In this last case, the special requirements from the purchasers (subjects with outstanding pedigree) dramatically reduced the exchange, which are carried out directly between firms or at qualified trade fairs.

The sucking calves for restalling come from small zootechnical milk farms[5] in which meat production is not advantageous because of the required specialisation. As already mentioned, with the exception of the Piemontese breed, the few remaining “estensive farms” follow the cow-calf line (in-house production of beef).

The imported sucklings usually follow the short channel and arrive directly to the fattener. This kind of import is carried out by associations of breeders (for example, cooperatives) and qualified importers who usually take the cattle directly to the farm of destination, so that they can avoid both sanitary controls and custom duties (Zucchi, 1990).

The role of the market dealer is therefore that of concentrating the supply coming from small and medium-sized farms for both sucklings and old animals, since the large firms specialized in meat production (fatteners) tend to maintain direct relationships with the slaughterers.

2.2.6. Interrelationships Along The Chain

Along the chain it is possible to select two kinds of main operators. To those which actively “process” the goods (breeding, slaughtering, processing, distribution) there can be added those who really exchange the goods and allow the connection with the first ones. Such a development was determined by the advancing specialisation in different activities and the consequent squeeze of the operators’ abilities. Confrontation has become all the more necessary and “intermediary operators” such as wholesale dealers and retailers do fulfill this task. In addition, transport, financing and administrative activities belong to the same chain, as well as the use of specific fittings (cattle markets).

To better understand the functioning of the chain, it is important to select and analyse the different markets (at origin, in bulk, retail) that give origin to a net of commercial and information relationships, thus affecting the development of the whole sector. To this end two main distribution channels can be detected:

the circuit of living animals ==> which includes all the channelling of livestock to the slaughter;

---

[5] The large milk firms purchase the suckling calves directly to the fattening farms.

the circuit of dead animals ==> the stages necessary to take the slaughtered head to the final market.

As to the first, we can say that in the last decades a strong development has occured: from cattle market and public slaughterhouse as pivot factors of the system, today these structures have been strongly reorganized to advantage of the direct relationships between producers and private industrial slaughter factories. The market was the meeting place of the two main operators (farmer and butcher) and covered a double function: it allowed a personal direct inspection of the cattle (usually characterised by strong hetereogenity) and at the same time it favoured the price formation. Once that an agreement was reached, the butcher took the animal to the public slaughterhouse and afterwards sides and/or quarters were delivered at his own shop.

The radical change in meat breeding organization was characterised by advancing qualification and concentration. At the same time, the arrival of private industrial slaughter factories, able to concentrate the different stages (gathering of livestock, slaughtering and first processing), urged the operators to visit directly the production places and to reach agreements of supply, thus by-passing the market and avoiding its use costs.

2.2.7. Consumer Demand

In this paragraph we will illustrate meat consumption trends with specific attention to beef consumption.

The analysis of meat consumption in Italy would not be accurate without an awareness of the great symbolic values that meat, and namely beef and veal, has had for the Italians. In Italy, a regular consumption of meat was a major indicator of belonging to a wealthy class. There is a large literature showing that consumption trends in Italy in the post-war period have been strongly affected by this symbolic aspect: one of the first effect of the economic development and the consequent increase in the personal incomes has been a boost in meat consumption, expecially beef and veal, whose nutritional value was considered the highest.

Nutritional science in the considered period approved strongly the trend, considering daily meat consumption as necessary for a correct nutrition, expecially of the teen agers.

Per head consumption of meat has increased more than six times from 1946 to 1992, reaching the level of 85 Kg in 1992. Though, the steady rate of growth until the 1990 is the result of relevant changes in the consumption patterns that can be analysed dividing the considered period into three periods:

- until about 1972;
- from the 1972 to 1992;
- from the 1992 onwards;

As evident in the table, an important feature of the italian pattern of consumption is the strong prevalence of beef and veal over the other typologies, at least by the end of the eighties. Though pork and poultry are an important component of the italian food tradition, meat consumption until the Seventies was centered upon beef and veal, configuring a rather original pattern of consumption in Europe.

Table 2.26 - Composition of italian meals *(Source: Torelli 1991)*

	(% on interviewed people)	
	lunch	**dinner**
first course	81.4	39.7
second course	88.9	94.2
beef and veal	75	42.1
pork	4.3	1.6
other	41.4	17.2
eggs	24	37.2
fish	43.4	24.1
ham, sausages	9.8	37.7
cheese	18.9	61.8
canned meat	1.5	6.7
vegetables	86	93.5
dessert	86	86.4
main course	5.3	-

To understand the reasons for the emergence of such pattern, it is important to consider the traditional composition of italian meals. In 1992, a survey made by a prominent specialized magazine, Largo Consumo (Torelli 1991) revealed this structure of the meals (Table 2.26): except from a share of people that have a “lighter” meal for dinner, more than 80% structure their meals in this way. If we examine the role of beef and veal in the second course compared to that of pork, we can see a strong dominance of the first over the second. Being pork consumption per head in the 1992 at the same level of beef, this figure apparently contradicts the available statistics. Indeed, it explains the different role played by the different types of meat. In the italian food tradition, pork meat has been available, for a great part, in the form of transformed or cured meat, which means ham and several types of sausages. Most of them have no need to be prepared since they are consumed cold, so that they were used (and still are) mainly as “starters” or “snacks” or in fast meals.

But there was another reason why pork meat had a secondary role in the italian diet: pork meat, especially transformed, is perceived as particularly tasty, but not as healthy as beef and veal, since it is fat and there is pepper in most of its products. Otherwise, products with an healthier appeal, like chicken or turkey, had to be bought as a whole or in halves and it had to be cleaned and cut, so that it was more time consuming to cook than many beef and veal cuts, and more rigid in the available portions; to the contrary, beef and veal most demanded cuts could be prepared in few minutes.

Moreover, both the productive and distributive system was more ready, in a first moment, to satisfy the increasing demand for meat. With an agriculture largely based on traditional structures of farming and a distributive system based on specialized butcheries, pork and poultry could not compete with beef and veal.

To summarize, income, nutritional wisdom, the trend toward a simplification of the daily effort to prepare meals and the structure of the italian agro-food system have pushed beef and veal per head consumption to among the highest levels in Europe.

1972 can be considered a turning point in the patterns of meat consumption. Economic recession, which in Italy was particularly strong, stimulated the Italians to look for cheaper alternatives to beef and veal; the switch was also encouraged by the public authorities through communication campaigns in support of “alternative meats”, since beef was a relevant item in the Italian Agro-Food trade deficit.

It is from these years that we can observe a steady growth in the consumption of pork and poultry; between 1970 and 1975, for example, beef and veal consumption decreases while pork consumption increase of 50% and poultry of 25%.

Though income effect is certainly an important factor of the change, confirmed by the temporary increase of consumption in beef and veal around 1980, the trend toward substitution cannot be explained only on this basis. Indeed, from 1973 onward the above seen constraints to the consumption of alternative meats are progressively relaxed.

An important factor of change in consumption patterns is the different pace of modernisation of the pork and poultry sectors compared with the beef sector. During these years product innovation, packaging, branding and advertisement are common features in the poultry industry as well as in the pork industry, while in the beef industry they are far from being introduced.

Industry develops production processes which make fresh pork and chicken available in the form requested by the consumers in terms of service: pork steaks and stew, cleaned and cutted chicken, some parts of which are increasingly available separated from the whole carcass. Correspondingly, at the farm level the sector undergoes a process of strong concentration, which allows a stronger integration with industry, and a more rapid pace of innovation.

Table 2.27 . Meat consumption per head by region: 1989 (Italy=100)
(Source: Largo Consumo n.9/91)

	Beef and veal	Pork	Poultry
Piemonte	100.1	72.8	89.8
Valle d'Aosta	108.4	90.5	84.4
Lombardia	106.2	81.5	98.4
Trentino	69.5	142.3	58.6
Veneto	96.1	113.5	97.9
Friuli	99.6	96.3	75.1
Liguria	102.5	58.3	96.7
Emilia	88.7	128.8	106.1
Toscana	118.5	113.3	110.5
Umbria	109.0	137.8	117.8
Marche	110.5	152.1	129.5
Lazio	118.4	95.9	121.8
Abruzzi	105.8	105.6	119.0
Molise	101.2	139.6	114.4
Campania	98.7	108.4	102.1
Puglia	81.8	79.9	82.1
Basilicata	83.5	99.6	88.2
Calabria	99.4	93.2	91.0
Sicilia	92.4	83.2	90.8
Sardegna	94.2	194.0	110.7
Italy	100.0	100.0	100.0

As we can see in a moment, the changing structure of retailing and an increasing role of retail chains on the distribution of meat have made pork and poultry products increasingly available, allowing for a greater range of choice to consumers. The same can be said of fish, whose consumption has increased from about 10 kg per head in 1980 to 16.6 kg per head in 1993.

It is only from 1992 that we can observe a decreasing trend for meat in total. The reasons of this decline will be analysed more in detail in the following section.

Table 2.27 shows an important feature of meat consumption in Italy, that is its regional distribution. From the table the range of variability in the pattern of consumption is quite evident. Beef and veal have regional index numbers, which range from 69 of Trentino to

118 of Toscana and Lazio; pork consumption is still more unevenly distributed, from 58.3 of Liguria to 152 of Marche.

Regional differentiation is not only in structure, but also in trends. While in Northern Italy consumption has followed the European trend, consumption in Southern Italy grows.

The beef and veal meat consumption has changed enormously in Italy from the end of the Second World War to now: During the sixties there was a great increase in meat consumption which witnessed the end of "poverty" or the increase of pro-capita income. In those years meat and meat consumption were symbols of welfare, and the per capita consumption of meat has increased from about 10 kg/ year of the sixities to 25 kg/ year of the ninenties.

Today the overall consumption of meat is stationary, and beef and veal consumption is decreasing (see Table 2.11). Nevertheless it is increasing the consumption of "noble / precious cuts" and it is decreasing the consumption of "less noble cuts" (offal and alike) .

Italian consumers in the nineties ask for higher quality in consumption of beef and veal, by decreasing the times of buying/consuming this product, and paying more attention towards healthy food and safety offered by the alternatives available on the market. In the last years has become popular a poorer diet: the same trend is evident in USA and North European countries, based on higher consumption of vegetables, pasta, sweets and vegetable oils.

2.2.7. Quality policy issue

Human safety:

The BSE crisis has raised consistently the concern of the Italian consumer for the safety of beef. Other main concerns regard hormones and antibiotics which, though forbidden by law, are largely used illegally.

Human health.

Several surveys show that Italians associate beef with cholesterol and with fat. Otherwise, it is also clear to a large share of Italians that beef is a very important component of the diet, expecially during the age of growth.

Animal health.

Prophylactic measures have proved to be particularly effective in Italy, and the principal bovine pathologies (TB, brucellosis and leukosis) are under control. A few problems are still caused by aphtha, and recently particularly strict rules have been provided for against it.

Meat quality

The attitudes of Italian consumers toward beef have been centered for years on colour, leanness and absence of fat. Though these characteristics have been improved through technical innovation, an emerging need of taste has grown in latest years, often linked to a rediscover of traditional breeds and processes of production.

2.3. The Structure Of The Poultry Chain

2.3.1. Supply by Source

According to the data of the ISMEA (Table 2.28, 2.29 e 2.30), **national production** of poultry meat appears to be stationary and in 1995 was approximately 1,125 ton (+2.8% in relation to 1994) with an overall value of 3,393 billion liras.

The sector shows structural and managerial characteristics, which strongly differ, from the general meat sector. In terms of productive self-sufficiency, for instance, there is a gap between chicken on the one side and beef and pork on the other. By these last, national consumption strongly weighs on import, while chicken production has been almost self-sufficient since several years. Since 1994, moreover, positive import-export balance has been recorded. Therefore import of live animals is lacking, and is instead a main feature for the other sectors under survey.

In addition, the poultry sector is characterised by an actual counter-trend in the consumption per person: in comparison with to other meats, it has been rising exponentially over the last twenty years and is still increasing.

Imports have been very low with a rate of self supplying since several years approaching 100% and even scoring higher in ‘94 and ‘95. The difference between 1990 and1995 indicates a reduction in volumes equal to 25% c.a., which moreover matches an increase of 26% in monetary terms. Particularly, in 1995 the principal import flows came from America (29%), Hungary (28%), France (20%) and Denmark (15%), and there was also a general downfall trend of the flows coming from the EU (approximately -33%).

Exports have been progressively increasing and recently they have exceeded imports in both volume and value, making the sector to register the top trend of the trade balance.

Table 2.28 - Balance of the poultry chains (billions liras) *(Source: Ismea)*

	average 87-91	1992	1993	1994	1995*
saleable gross production	2,987	3,148	3,526	3,486	3,393
import	155	197	215	117	138
available quantity	3,142	3,345	3,741	3,603	3,531
export	46	64	120	181	238
resulting consumption	3,096	3,281	3,621	3,422	3,293
expenditure per-person (000 liras)	55	58	63	60	57
rate of self-supplying (%)	96.5	95.9	97.4	101.9	103.0
balance	-109	-133	-95	64	100
movement	201	261	335	299	376

*estimate

Table 2.29 - Balance of the poultry chains (000 tons) *(Source: Ismea)*

	average '87-91	1992	1993	1994	1995*
saleable gross production	1,078	1,095	1,089	1,094	1,125
import	41	50	45	37	26
available quantity	1,119	1,145	1,134	1,131	1,151
export	24	31	41	56	76
resulting consumption**	1,095	1,114	1,102	1,075	1,075
consumption per-person (kg)	19.3	19.6	19.3	18.8	18.8
rate of self-supplying (%)	98	98	99	102	105
balance	-17	-19	-4	19	50
movement	65	81	86	93	101

*estimate, **including variation of stock

Table 2.30 - Trend of values and quantities *(Source: Ismea)*

in lire ==>	var. '95 / avg. 87-91	var. '95 / '94	in ton. ==>	var. '95 / avg. 87-91	var. '95 / '94
saleable gross production	13.6%	-2.7%		4.4%	2.8%
import	-11.0%	17.9%		-36.6%	-29.7%
available quantities	12.4%	-2.0%		2.9%	1.8%
export	417.4%	31.5%		216.7%	35.7%
resulting consumption	6.4%	-3.8%		-1.8%	0.0%
expenditure per-person	3.6%	-5.0%	consumption (kg/per-person)	-2.6%	0.0%
rate of self-supplying (%)	6.6%	1.2%		6.2%	2.9%
balance	-191.7%	56.3%		-394.1%	163.2%
movement	87.1%	25.8%		55.4%	8.6%

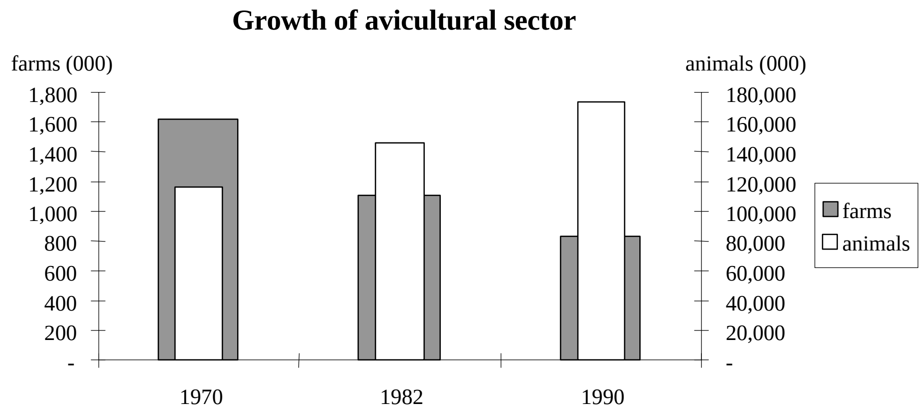
2.3.2. Farm Production

Farm productive structure appears to be highly dynamic, and since 1970 it has brought to strong concentration of the production. At the aggregate level, it is possible to read a shrinking equal to almost 50% in number of firms coupled with an equivalent increase in number of animals which in turn definitely brought to an increase of almost three times the average rearing consistency by each farm (Table 2.31, Chart 2.5).

Table 2.31 - Growth of number of firms and animals *(Source: Istat)*

	1970	1982	1990	var. % 90/82	var. % 90/70
nr. of firms	1,618,771	1,109,512	826,481	-25.5%	-48.9%
nr. of animals	115,744,720	146,166,958	173,341,562	18.6%	49.8%
average consistence	72	132	210	59.2%	193.3%

Chart 2.5



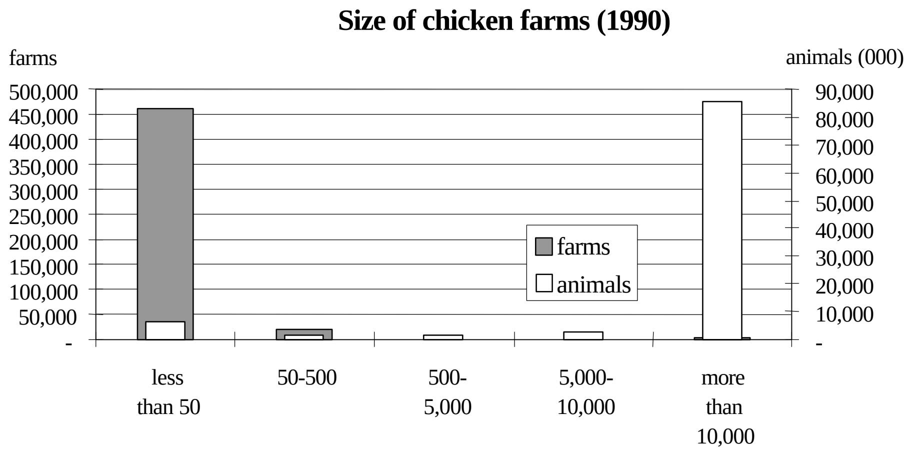
The analysis of chicken rearing (Table 2.32, Chart 2.6) shows that over the last four years development has been quite powerful, with a relevant decrease in number of small and medium-sized firms (less 20%), which are presently about 480,000. It is interesting to observe the actual level of concentration, which shows on one side 1,800 rearing farms (i.e. 0.4% of the total) covering almost 90% of the national production, on the other approximately 95% of farms (6.5% of the animals) which are characterised by self-consumption and scarce integration, being connected to the market only by informal and/or local channels.

Ultimately, we can say that the driving structure of italian avicolture is represented by approximately 3,000 farms; in comparison with other zoo-technical activities, these show peculiar characteristics, which are shaped in particular by the high level of backward and forward coordination along the chain. Here, in fact vertical integration pertains only a few leading farms, which control the whole productive process, from the backward stages (production of feeds, multiplication and incubation centers, rearing) to the forward ones, such as manufacturing of meats, marketing and distribution. Therefore, 80% of production has been estimated to come from vertically integrated farms, where the integrating firm is represented by 35% slaughtering and manufacturing, and by 45% feed productors. Within such a productive system also the role played by 300 industrial firms of incubation is not marginal (Largo Consumo n.10/95).

Table 2.32 - Distribution of chicken rearing farms by size and animals *(Source: Istat)*

size	farms	animals	%farms	%animals
less than 50	461,889	6,351,752	95.3%	6.5%
50-100	15,875	881,412	3.3%	0.9%
100-500	3,553	485,696	0.7%	0.5%
500-1,000	228	134,945	0.0%	0.1%
1,000-5,000	628	1,477,397	0.1%	1.5%
5,000-10,000	408	2,728,760	0.1%	2.8%
10,000-25,000	943	15,195,862	0.2%	15.5%
over 25,000	964	70,547,636	0.2%	72.1%
total	484,488	97,803,460	100.0%	100.0%

Chart 2.6



A second peculiar characteristic of the poultry productive structure is given by local concentration: 83% of chicken rearing are located in Northern Italy, in particular in the North-East (58.7% against 24.5% in the North-West). The three principal regions are Veneto (33.8%), Emilia Romagna (21.5%) and Lombardia (17%), followed by Piemonte (8%) and Tuscany (5%). Within the national poultry perspective a major role is played by the "poultry district" in the province of Forlì (Emilia Romagna), where there is a relevant number of small and medium-sized farms and also the most important national poultry-rearing (as well as rabbit) firms with an overall turnover reaching approximately 600 billions. About 45 million chicken (equal to 17% of the national supply) are produced in the province and about 79 millions of poultry and rabbit are slaughtered here.

2.3.3. Meat Industry

Given the peculiar management characteristics of the poultry chain, with integrated processes, we consider to be more rational and clear to deal together both slaughtering and processing.

As already noticed, since import flows are unrelevant, slaughtering volumes are closely linked to the productive volumes.

As to the number of slaughtering structures, according a few surveys, 1,600 are actually operating, many of them are small and about 200 are vertically integrated (Largo Consumo n. 10/95).

At the end of 1994, EEC standardised slaughtering structures for chicken were 465, and 241 of these were dissection laboratories (ISMEA, 1996).

Expressing the rate of products with high content of services, the percentage amount of fresh meat for manufacturing can be assumed as an index of the innovation in the sector. Thus, a 10% rate of meat for innovative manufactured products ranks the poultry sector as more dynamic than the beef one, in which only 5% of beef is being manufactured and which is therefore considered to be the most traditional (Troiani, 1996). In this classification it is difficult to assess the innovation level of the pork sector, in which 70% of the volumes are manufactured, and yet traditional production (seasoned cold salami) is prevailing.

Starting from the 60’s, the sector has undergone a continuous process of concentration. As a consequence, a few big groups have been developing, and are now competitive not only in Italy but also within the EU.

These consolidated by means of steady investments on both know-how and marketing (consolidation of the trade mark). Vice versa, small and medium-size firms have been choosing alternative strategies: some of them turned to cooperative structures in order to cope with the market, others preferred price strategies and offer low commodity products or operate as third party on behalf of the leading companies. Other groups of firms have selected or even created market niches and offer special meat (quail, pigeon, guinea-fowl); others have staked on the image of free-range chicken and market it on local distribution chains through direct (sales on farm grounds) or short channels (supplying very small shop, peddlars, restaurants, etc.); lastly, others have developed products with high content of services.

Table 2.34 - Volume of slaughtering *(Source: Ismea)*

	production (ton/dead weight)			
	1993	**1994**	**1995**	**var. 95/94**
chicken	1,089	1,094	1,125	2.8

Table 2.35 - Rate of meat to be manufactured *(Source: Largo Consumo)*

	Production (tons)	Manufactured percentage
beef	1.4 bl.	5% (2% corned beef)
pork	1.6 bl.	70%
poultry	1.1 bl.	10% for innovative products

Ultimately, the poultry sector shows a strong productive concentration, which is peculiar when compared to other zootechnical sectors: in 1995, the first four leading firms covered 40% of the sales, and amongs them the top firms (chicken and turkey) covered a 22-23% share of the market.

Table 2.36 - Poultry meat: the principal companies *(Source: Ismea)*

	Turnover (billions of liras)		
Company name	1992	1994	1995*
Aia spa (Veronesi) (VR)	619	1,078	1,200
Gruppo Amadori (FO)	431	531	600
Pavo spa (TV) (Agroalim. Fin. Holding) (1)	299	355	n.a.
Avicoop scrl (FO)	189	265	n.a.
Coop Alva scrl (CN)	73	122	120
Fileni - Simar srl (AN)	80	108	118
La Faraona scrl (PD)	84	105	115
Coop. Pollo del Campo scrl (FO)	72	100	90
Garbini Carni srl (AN)	80	87	90
Vallespluga spa (SO)	37	36	40

*estimates - (1) Celadon group

The top firm in the sector is the Veronesi group (trademark AIA), which has reached that position by means of synergies resulting from diversification of the production in other sectors, either zootechnical (production of cold salami and beef) or frozen products (joint-venturing with the Unileveer). In terms of turnover, in 1994 other leading firms were Arena and Amadori, followed by Avicor, Cafar, Garbini, Fileni, Pavo, Pollo del Campo (Table 2.36).

The failure of the Arena group, which is actually under controlled administration, caused further shares of the market to be gained by competitive firms, in particular the Aia group.

The Cooperativa Avicola La Faraona is the first productor of guinea-fowl meat, having obtained in 1994 a 100 billion turnover. Its strong point is given by environment-friendly poultry rearing, close to the natural habitat of the species.

Only few dozens of firms are operating in the segment of manufactured products (to be further analysed in the following sections), and the AIA is still on top, followed by Amadori and Simar-Fileni, whose turnover covers 30% of the manufactured commodity (Table 2.37).

Table 2.37 - Market rates of the principal company in the segment of manufactured poultry meat (1993) - (*Source: Ismea)*

	% over the volume
Aia	37
Arena *	24
Amadori	10
Other	29

*since June of 1994 the company is under controlled administration

2.3.4. Retail

The distribution structure develops preferably through long channels, whereby the wholesale dealer still plays a key role, supplying both big productors (particularly for the most far away markets) and small and medium-sized firms. All the more important in South Italy areas, wholesale dealers also control large shares of the catering segment, offering a competitive price coupled with the capacity of supplying suitable packages for public catering and a diversified range of products.

Obviously, large enterprises prefer to establish immediate relationship with Large Distribution, which lends itself to distribute innovative products more suitably; conversely, innovative products are much reduced in the traditional butcher's shops. In order to gain more effective connections with large trade chains and groups of organised retailers, these firms are strengthening their transport structures.

To traditional butcher's shops are linked in particular the small enterprises which usually can supply home-made-like products, much preferred by the average butcher's customer.

Within the traditional channels, poultry shops have been markedly diminishing to the advantage of traditional butcher's shops.

Also discount markets represent an interesting channel for the leading firms, which however supply them with different products (i.e. other trademarks) in order to prevent negative feed-back in terms of image. Discount markets registered relevant volumes of sales relative to 4th manufacture products (without trademarks) thanks to the highly competitive sale prices (40-45% less than the corresponding reference trademark).

Table 2.38 - Distribution channels of poultry meat in Italy in 1994 *(Source: Ismea)*

	volume (tons)	percentage
self-consumption and farmer-consumer direct channels	**75**	**7.0%**
traditional shop:		
- butcher's shops	320	29.9%
- poultry shops	130	12.1%
pedlars	65	6.1%
modern distribution	185	17.3%
others (delicatessen, rotisseries, etc.)	20	1.9%
total of families	*795*	*74.3%*
catering	275	25.7%
Total	**1,070**	**100.0%**

In order to complete the general outline of distribution channels, it is necessary to stress the importance of the direct supplying channels: 10% of the consumers still buy directly from the farmer, and this share hugely increases in the rural districts, that is where this channel is most easily available. This share includes also self-consumption from many families dwelling in the country (not necessarily farmers) which rear barnyard animals for domestic requirements. On this respect, according an estimate of the National Association of Aviculturists (Unione Nazionale Avicoltori), in the italian rural districts approximately 100 million of chicken and 3 million of minor species (turkey, duck, goose, guinea-fowl, pigeon, etc.) are being reared.

With reference to Table 2.38, it can be said that the sales of modern distribution (at present around 17%) have remarkably increased in comparison with the previous year (+5.8%), peaking up to 11% with hypermarkets.

Large Distribution is gaining increasingly importance in the field of innovative products. In fact, 60% of innovative products are being sold through modern distribution, able to supply a high number of them according to the different typology of the shop (20 in a small supermarket, 40 in a hypermarket and 60-65 in medium-sized supermarket).

2.3.5. Trade

In relation to import meat (table 2.39), in 1995, the principal flows came from America (29%), Hungary (28%), France (20%) and Denmark (15%), and there was also a general downfall trend of the flows coming from the EU (approximately -33%). Even though reduced in quantity, imports occasionally can upset the market, being concentrated during specific periods of the year. Operators are fundamentally motivated to import by a price plus; yet they are inclined to unanimously acknowledge remarkably better quality (in terms of taste, flavour, tenderness, cooking resistance, etc.) to italian products for domestic consumption market. The reasons for such a superior quality are to be found in the following characteristics:

- better feeding technologies: in Italy precious food are prevailing (soya and maize) while in other countries less precious food are commonly used, such as cassava, tapioc or potatoes flour:
- the italian slaughtering average age is higher than foreign standards;
- finally, slaughtering systems and manufacturing of carcasses: in Italy the cooling system works in a cold air tunnel, thus allowing meat to release a certain amount of water; abroad a cooling system with cold water and ice is commonly used, which causes a further absorbtion of liquids from the carcasse with a consequent impoverishment of meat quality.

Table 2.39 - Import of poultry meat and other minor species in Italy *(Source: Ismea)*

	volume (thousand of tons)							
	1990	1991	1992	1993	1994	1995	avg 90-95	var. 95/90
chicken, rabbit, wild fowl	72	74	82	83	71	54	73	-25.0%
	value (billions of liras)							
	1990	1991	1992	1993	1994	1995	avg 90-95	var. 95/90
chicken, rabbit, wild fowl	283	293	348	419	405	357	351	26.1%

Table 2.40 - Export of poultry meat and other minor species in Italy *(Source: Ismea)*

	volume (thousand of tons)							
	1990	**1991**	**1992**	**1993**	**1994**	**1995**	**avg. 90-95**	**var. 95/90**
chicken, rabbit, wild fowl	31	34	36	47	61	86	49	177.4%
	value (billions of liras)							
	1990	**1991**	**1992**	**1993**	**1994**	**1995**	**avg. 90-95**	**var. 95/90**
chicken, rabbit, wild fowl	75	76	89	151	224	310	154	313.3%

The export flows (table 2.40) are principally directed towards Germany (which at present is producing only 50% of its domestic demand), Great Britain and Spain (together they take over 60% of italian export). Moreover, there are also plannings for marketing and improving frozen poultry meat products in Eastern Europe. Gathering 13 firms and 15 factories, the association Consur was established to achieve these objectives.

The development of typologies of poultry species, which in 1994 indicated a substantial preminence of chicken (61% in value; see Table 2.41), shows that since the 70's (see Table 2.42) the rearing has been progressively centering on two species, namely chicken (male and female) and turkey. Even though in 1974 "other species" scored 12.1% of the slaughtered quantities, in1994 such a percentage shrank to 7.1%. Over this period, the importance of turkey rearing has increased. At present it seems stationary, but its previous remarkable increase was due to dynamic innovation of both product and systems, more intense than in the rest of the poultry sector. Finally, the decline of hen rearing is evident: from 10.7% in 1974, today it has fallen to approximately 8.2%.

Table 2.41 - The market of poultry meat by species in Italy in 1994 *(Source: Largo Consumo)*

species	volume (tons)	value* (billions)	% value
chicken	655	5,100	61.4%
turkey	251	1,950	23.5%
hen	88	410	4.9%
guinea-fowl	34	290	3.5%
other species	42	550	6.6%
Total	1,070	8,300	100.0%

Table 2.42 - Market development of poultry meat by species in Italy
(Source: Largo Consumo and Endrighi, 1990)

	volume (000 tons)					
species	1974	%	1984	%	1994	%
chicken	483	57.6%	574	60.4%	655	61.2%
turkey	164	19.6%	231	24.3%	251	23.5%
hen	90	10.7%	76	8.0%	88	8.2%
guinea-fowl	n.a.	n.a.	n.a.	n.a.	34	3.2%
other species	101	12.1%	70	7.4%	42	3.9%
Total	838	100%	951	100%	1,070	100%

Excluding cold salami and giblets, poultry meat is equal to 30% of the total consumption of meat. Such a relevant share has been reached by gradually substituting beef with poultry meat (owing more to competitive price than to "BSE" effects). Strong evidence of its competitiveness is given by the progressive substitution of beef hamburgers with those made of turkey, as well as by the growing penetration of poultry meat into public catering.

Among poultry meats, turkey has increasingly showed a strong "out-of-season" consumption. Until twenty years ago, the highest consumption was recorded around Christmas time; today it is evenly distributed all over the year. The consumption of turkey scores approximately 4.4 Kg per person, covering a 30% share of the total consumption of poultry meat.

Hen meat show a marked downfalling trend, young cocks and guinea-fowl consumption is stationary.

As a general trend, the market is characterised by instability of price, which is a consequence of scarcely feasible planning policies of supply. The small firms which are not integrated in the system, and which therefore can create over productions disturb these policies. The main reason, however, has to be found in the strong rigidity of the productive process, which shows two critical points. The first is the impossibility of extending the rearing terms when the animals are fully-grown, because the feeding cost would become higher than the profit; the second is given by the short terms of meat conservation.

These variations affect especially the traditional segment of commodity (1st generation), whereby producers have no influence on market price. Conversely, in the case of manufactured products, trademark products allow a stronger degree of autonomy from the original price along with higher margins of contribution.

Ultimately it can be said that for a backward integrated poultry farm the diversification of product supply (from the 1st to the 4th generations) represents a defensive strategy against unruling market, inasmuch it can cope with possible crisis in the price of poultry commodity by steering the production into manufactured products with high content of services. At the same time it can also give indications to the sub-supplying firms in order to slow down the rearing stage. Moreover, the birth of 3rd and 4th generation products allow higher profitability from the carcass, owing to the re-use of those parts (neck, wing, etc.) which otherwise could not find any use.

In order to illustrate the market development of poultry products it is necessary to subdivide the market itself into specific segments according to the increasing content of services. Therefore, we will speak of products of:

- 1st manufacturing process, when the sellable product is the whole carcasse of the animal (fresh meat);

- 2nd manufacturing process, when they market packaged parts of the animal (leg, breast, wings, etc.);
- manufactured products which, in turn, are distinguished in 3rd (row products, such as skewers, rolls and so on) and 4th (cooked and ready products) manufacturing processes.

As it can be seen on Table 2.43, the 1st manufacturing processes represent a 22% share of the poultry meat market, and are actually undergoing a declining trend. These are purchased by 45% of Italian families, scoring top both in Central and Southern Italy and in those families in which there is a housewife.

The 2nd manufacturing processes cover 65% of the market and are purchased by 61% families. They are now undergoing the maturity stage of their life cycle, and have taken away market shares of the first products.

Table 2.43 - Percentage of different product typologies in the chicken market in 1995
(Source: Ismea)

	%
1st generation	22.7
2nd generation	65.2
3re generation	7.4
4th generation	4.7

Table 2.44 - The market of manufactured poultry meat in Italy: 1990-1995 (000 tons)
(Source: Ismea and Largo Consumo)

	poultry meat	3rd and 4th manufactures	%
1990	1,083	64	5.9%
1991	1,068	76	7.1%
1992	1,075	90	8.4%
1993	1,066	99	9.3%
1994	1,070	105	9.8%
1995* (estimates)	1,075	109	10.1%

The products of 3rd and 4th generation represent the more increased segments over the last year: in 1987 they were equal to 3% of volumes and in 1995 to 10-12% (Table 2.44). At present they cover 10-12% of family consumption. Following the economic slump and the lower levels of occupation, the recovered importance of price for the consumer’s choice has been causing a sharp shrinkage of sales. These products with high content of services are most used by social categories, which need to save time spent for food preparation, and their consumption is closely linked to the rate of female activity.

This sector is also characterised by the wide expansion of trademark products which make up for 45% of the poultry meat market, and even if until recently trademarks concerned only manufactured products, today they have reached a 40% incidence also in the segment of 1st manufacture.

Ultimately, amongst the several meat sectors, the poultry meat is the most open to innovation and also to promotion of brand products. At the same time, however, trading marks (of the Large Distribution chains) are not yet extended, because of the long established and strongly promoted trademarks and also because of the health and sanitary rules necessary to package the products on the sales premises.

A further characteristic of the poultry meat sector is the strong incidence of advertising: 90% of meat advertisement expenditure comes from this sector. Comunication strategies are centered on innovative products, which allow higher margins of profit, and also, due to umbrella-marks, more effective brand policies. These last, in turn, positively influence also the more traditional brands. Only the large firms, however, follow this line; the small ones prevailingly try to achieve leadership of cost.

2.3.6. Interrelationship Along The Chain

Given the absolute importance of vertical integration for the sector and for the leading companies which control the productive process along the chain, in this section we will analyse the principal aspects of that integration, which is carried out by means of agistments between the farm and the forward integrating firm, and also other kinds of agreements linking the operators all along the chain.

By means of integration the *firm<->sub-supplier system* aims at preventing any possible speculative and opportunistic behaviour of the contracting parties, as well as at mitigating fluctuation in market prices; moreover, integration allows quality control systems of both process and product along the whole chain, and the characteristics of the final product are more guaranteed. It can be noted that over the last years, the management of the chain has underwent relevant changes: the leading companies increasingly externalize marginal stages in order to maintain and strengthen core-business functions such as marketing and trade.

In addition to the above reasons, the need for strong backward integration originates also from an urgent need for optimum processing times, since the product conservation terms are short and the risk of unhealthy consequences is high.

On this issue, further information are needed. For example, which is exactly the role of aviculturists' associations? To answer this question would mean to further understand the agreements concerning integration, coordination and planning policy, as well as to follow back those stages which have brought to the actual predominance of the big operators coming from poultry seed or slaughtering sectors.

Coming from the farm sector, also private and cooperative firms operate in the poultry one: for example there is an integrated group of firms which has realized a policy of chain control (from hatchery to marketing) in order to manage the whole process. Another cooperative firm of farmers established in 1973; at present its 72 members produce approximately 12 million chicken per year, with a turnover equal to 60 billion. The firm, moreover, owns a feed factory, carries out the slaughtering and through an associated firm carries out also the trade marketing.

Although with different levels of operational flexibility, other examples of farms operating through integrated organizations are the Pollo del Campo (which gathers and markets the chicken reared by its associated farms) and the Aia, which keeps a complete control from the animal suppliers to the feeding, manufacturing, packaging and distribution.

A different structure is that of the Amadori group, which directly manages chicken farming and owns it at 90%. This strategy undoubtedly means stronger locking up of capitals, and yet allows a direct control on product quality.

In comparison with other zootechnical sectors, the adjustment of the chain to the growth of consumption has been very rapid, being partly favoured by evident competitive initial factors; for example "industrial" rearing systems can be more easily developed, whereby land is no more an imperative requirement and genetic improvement is very rapid. In addition, those advantages are supported by very strong policies of vertical integration, along with equally strong innovation strategies, both influencing equipment in the different stages, management systems, final products and additional services, resulting in a wide production which ranges from traditional (1st generation) to pre-cooked (4th generation).

Interrelationships along the chain have been so far analysed following the links between Large Distribution and poultry farms, namely the LD management of meat department in a supermarket.

Generally we can say that the LD sales of industrially prepared and packaged products generate strong bargaining power from the suppliers and also insufficient diversification in the range of products, because of the reduced numerousness of the productors and the price policy imposed by the leading firms.

The choice of the Large Distribution whether to market its own trademarks or those of someone else is depending on which equipment and ability it can rely upon, and also on accurate analysis of related costs and benefits. Packaged products allow to diminish the risks connected with health and hygiene (which, however, would fall on the supplier) and also to standardize the offer. Yet, to choice packaged products means that the distribution chain will have to reduce its margins of profit.

Therefore, the strategies of the various Large Distribution chains are disparate, showing manifold attitudes: as to the 2nd manufactures, for instance, a few chains dissect and package the carcasses which were delivered undivided; others purchase already manufactured and packaged products. Similarly differentiated is also the supply of 3rd and 4th manufacture processes: a few chains carry out the complete preparation in their own meat department, others insert references with the productor's trademark.

An issue, which is becoming all the more important to the distributor is the reliability of the service which the supplier can provide together with a product. In fact the more enterprising productors are trying to respond timely and suitably to the LD requirements, and today adequate transport has become a determinant (even more crucial than sales strategy) in the competition amongst enterprises. Therefore, a few firms are carrying out daily deliver to the sales premises, and small and medium-sized firms appear to be the most adaptable.

Ultimately, cooperation strategies between distributor and productor are carried out in the fields of both transport and quality control.

2.3.7. Consumer Demand

Poultry cover at 22-23% the total amount of meat consumption (Table 2.11), swing an increasing trend over the latest decades. From 13,2 kg/ per person in 1971 consumption topped at 18,4 kg/per person in 1995 at an average annual rate of 1.6% (Brugnoli, 1993). The trend is typical of a product in its **maturity:** increasing peak were reached at the beginning of the 70's; later, the increase has been less rapid and stable for long periods. The general consumption does not consistently differ in the different market segments.

Table 2.43 - Unitary cost of proteins from different animals *(Source: Largo Consumo)*

	Liras/gram
lect of turkey	28.9
breast of chicken	54.4
tender beef	72.2
beef	100.9

The causes for this trend are to be found in the advantages which the product in terms of both price (remarkably contained - see Table 2.45) and consumer shift to white meats. These last are considered healthier than the red ones (higher content quali-quantitative of proteins, small quantities of low fats, higher degree of tenderness and digestibility).

2.3.7 Quality policy issues

Human safety

Salmonella is the main of the concerns regarding chicken. Indeed, these concerns don't touch so much the consumer - mainly because chicken is consumed cooked - as the retailers, who are more aware of the consumer of the microbial levels that chicken meats can reach.

Human health

Chicken meat is perceived as very healthy, since it is seen as less fat and more digestible, and fit to the diet of children and elders.

Animal health

The characteristics of the production process of poultry make the sanitary problem one of the most important. To avoid the spread of diseases, there are very intense programs of vaccination. Moreover, environmental conditions in the plants (Heat, cold) affect very much animal health.

Meat quality

The increase of chicken consumption is due to health concerns (chicken meat is considered healthier than beef and pork) and to innovation. Integrated chicken producers have consistently diversified the production in order to meet consumers' requirements for high content of services in food.

Some concerns of the consumers regard the way chicken are reared: the degree of industrialisation of the processes stimulates a search for more "traditional" breeding schemes.

Section III. Institutional arrangements

3.1 Government

In the field of Agriculture roles among agencies of the State are not well defined, causing overlapping and institutional conflict. Therefore, many Regional Governments promoted a referendum to abolish the former Ministry of Agriculture; this has been reformed (unsatisfactorily, according to Regional Governments) into the new Ministry of Agricultural Resources. In the following sections we will illustrate the main institutional arrangements, distinguishing among safety and quality, which are regulated differently.

3.1.1 Safety and hygiene of livestock, meat, meat products

In the field of safety and hygiene of livestock and food of animal origin we should distinguish among three typologies of agencies:

- Sanitary Authorities
- Technical agencies
- Repressive agencies

Sanitary Authorities

In the field of food safety and hygiene, (Presidential decree 327/1980), the following sanitary authorities are established:

- Health Ministry
- Regional Governments
- Municipalities

Health Ministry

As stated into regulation nr. 833/1978, Health Ministry

- sets out general guidelines for National Health policy,
- supervises the co-ordination of regional policies;
- control the uniform application of European Union regulation and other International treaties;
- Releases the authorisation for special plants for raw material of animal origin;

Moreover, the Health Ministry has the power to take urgent measures on matters of national relevance.

Within the Health Ministry, five General directorates are set out: (regulation n. 256 1958).

- General Directorate of general affairs
- General Directorate of public hygiene and hospitals (which concerns also food hygiene)
- General Directorate of social medicine
- General Directorate of Drug Services
- General Directorate of Veterinary Services

Regional Governments

Regional Governments can rule in the field of Health, within the limits established by law.

Each Regional Government must set up a Prevention Department (LD 502/1992 modified into LD 517/93) subdivided into:

Food hygiene and nutrition service

Veterinary services, on turn subdivided into:

Animal health

Production, processing, trade, conservation and transport hygiene of food of animal origin;

Livestock and animal production hygiene.

Municipalities

Municipalities are the lowest level of Health administration. They release authorisation to small laboratories of food production and wholesale warehouses; their officers have the task to perform the sanitary and veterinary controls over the territory.

Technical institutes

Istituto Superiore della Sanità (ISS) is a consulting body for the general guidelines in the field of Health policy

Istituti di zooprofilassi (law 296/1958) are regional and interregional agencies set up as instrumental agencies by the State and the Regional Governments. They carry out veterinary research and experimentation, and monitor the health state of animals and safety of food of animal origin.

Repressive bodies

NAS (Nuclei Antisofisticazione e Sanità): they are a specialised military body whose task is to make controls in the health and hygiene matters under the State responsibility. This body is under dependence of the Health Ministry.

3.1.2 Food quality and repression of frauds

Also in this field there is a division of roles among the different articulations of the State.

National level

Miraaf

Following the recent referendum, which abolished the former Ministry of Agriculture, a new Ministry of Agricultural Resources has been instituted.

It is articulated into: (Presidential decree 15 March 1994 n. 197)

- General directorate of European and International policies;
- General directorate of Agricultural Agro-industrial National Policies;
- General directorate of forestry;
- General directorate of fisheries;
- General directorate of general affairs.

As far as quality policy is concerned, the MIRAAF has had, so far, an important role in managing the Designations of Origin, collecting the applications and acting as an interface with Bruxelles. Moreover, the MIRAAF approves the Quality Marks of the agro-food products. In order to obtain approval from the Ministry, organisations should submit documentation concerning the name of the mark (which should already be registered at the Registration Office, which is a body of the Ministry of Industry), product or process standards, plan of controls, statutory rules of their organisation.

Moreover, MIRAAF:

- is responsible for the Register of the breed and of vegetal varieties, and
- acknowledges control and certification agencies in organic farming and makes a second level control on organic products coming from third countries (see section 4.3.2)

There are two repressive agencies co-ordinated by the MIRAAF:

Ispettorato Centrale Repressione frodi, whose task are:

- Controlling the enforcement of the agro-food regulations;
- Controlling quality of products at the borders;
- Controlling all of the matters of competence of the Ministry;

Comando Carabinieri tutela norme comunitarie: it is a military body recently instituted to repress the frauds to European Community, a phenomenon largely widespread in Italy.

AIMA

AIMA (Azienda di Stato per gli Interventi nei Mercati Agricoli) is the body who administers market intervention according to the Common Market Organisation. It buys products at intervention price, sells it when possible and according to the regulations, stocks the product, pays the subsidies to the farmers. The role of AIMA is under strong criticism, so that a bill has been introduced to abolish it.

Beef National Committee

Instituted in 1984, the Bovine National Committee has the task of organising all of the services necessary to apply the EUROP standards over the national territory. In particular it:

- Gives a certificate of authorisation to carcass classifiers;

- Organises professional courses for classifiers;
- Makes second level controls.

Up to now, it has released 747 certifications.

Regional level

By constitutional law, agriculture is a matter of competence of the Regions, which can legislate and administer most of agricultural matters.

In most of the Regions there is a further level of administrative devolution, the Provinces, whose main task is to administrate national and European funds, but which also perform promotional initiatives.

Regional Governments have technical agencies (most of which are called Development Agencies), whose task range from experimentation to co-ordination of the extension services, which in the last years have activated themselves to publish technical norms.

3.2 Non-Government

3.2.1 The national system of certification

National regulation agencies are the CEI (Italian Elettrotechnical Committee) and the UNI (Italian Unification Organisation).

On top of the certification system are the following organisations:

- SINCERT = National Quality System of Certification (following a 1991 agreement between UNI and CEI concerning procedures which are necessary to grant the qualification for certification institutes)
- SINAL = National System of Laboratories Qualification (established in 1988 by UNI and CEI and suppported by the Ministry of Industry and Trade, the CNR, the ENEA and the Chambers of Commerce. Its purpose is that of accrediting which laboratories should verify and warrantee the conformity to the UNI En 45000 regulation).
- The qualification can also pertain to only a part of the laboratory, i.e. where tests are performed. The detailed results of the test can be required directly to the SINAL.
- SNT = National System of Calibration (established through the law n. 273 of 1991 which includes also Metrology Institutes).

- SIT = Calibration Service in Italy (established in 1979): it also qualifies laboratories through a specific calibration service with the co-operation of the SINAI
- AICQ SICEV = Certification System of Quality Evaluators

In Italy the certification services are 38 and 10 of them are federated into the CISQ, which belongs to the EQ-Net (International Certification Network) for mutual acknowledgement of certifications in Europe. The CISQ is an open group of qualified certification services (at present 9 members), which operate in the nation within specific trade sectors (Table 1).

The CISQ has also established a certification service which is directly managed, the CISQ-CERT, in order to meet the requirements of those businesses which are not included in the sectors covered by the other federated services.

In addition to the European agreement with EQNet, the CISQ has signed other important national agreements which include:

- CISQ/SINAL agreement to jointly evaluate the Quality Systems aiming at both CISQ certification and SINAL qualification of business laboratories;

- agreements with category associations to provide information and assistance;

- co-operation agreements with the following European Organisations: MSZH (Hungary);

- co-operation agreements with the following International Organisations : QMI (Canada); BCIQ (Taiwan), TSE (Turkey).

Certification agencies in agro-food

The agro-food sector includes at present the following 5 certification services:

- DET NORSKE VERITAS ITALIA
- BUREAU VERITAS QUALITY
- CSQA
- SGS ICS Srl
- CERTIAGRO

Certification agencies in the field of organic farming:

- AIAB (Associazione Italiana per l'Agricoltura Biologica) - Bologna;

- Associazione Suolo E Salute - Montefelcino - Pesaro;

- Bioagricoop - Casalecchio di Reno - Bologna;
- CCPB - Bologna;
- (Consorzio per il Controllo dei Prodotti Biologici)
- Codex - Basilicanova - Parma;
- Ecocert Italia - Catania;
- Istituto Mediterraneo di Certificazione - Senigallia - Ancona;
- QC&I International Service - Perugia.

3.2.2 Breeders Representatives

AIA (Associazione Italiana Allevatori, Italian Breeders' Association)

AIA was founded in 1944, and groups together:
31 National Associations for Species and Breed
16 Regional Associations
91 Provincial Associations
7 Institutions whose finalities met those of AIA

Thanks to its representativeness, AIA has been delegated by the Public Administration to perform several tasks of its pertinence.
Among the technical activities of the AIA we could enumerate the following:
Functional controls over animal productivity;
Maintenance of animal census registers;
Technical assistance;
Co-ordination of zootechnical fairs;
Animal health;
Intervention in the field of quality of meat.

AIA is the institution appointed by the Regulation of Italian "Plan for quality Meat" (see 4.1.3) as the Secretary and General co-ordination of the plan.

3.2.3 Acknowledged quality Consortia

The following consortia are acknowledged by the Ministry of Agriculture as owners of "Quality Marks". Thanks to this acknowledgement, consortia have powers of control over their associates which are stronger than those concerning the private relationships among members and their organisation.

The **Consorzi volontari di Allevatori** (RD 929/42) (Volunteering Breeders' Associations) are recognised by the Ministry of Agricultural Resources and are granted an annual contribution.

Their objective is quality and healthiness of the product, which are to be obtained by means of preferring certain breeds, farms and food as well as to agree to controls and drawing of samples from the Association. Each Association includes experts in order to provide technical assistance and perform the controls on behalf of the Associations.

Approximately one thousand authorised shops contribute to the promotion of certified meat and to promotional activities.

At present, the Associations are four:

- **Consorzio carne bovina documentata** (1982) (headquarter: Mantova) which includes farmers-breeders of northern and central Italy. The associated farms are c.a. 1750. The marketing (150.000 head of cattle each trademark) follows mostly the traditional channels, i.e. 600 specialised shops with sole rights of sale. The trademark «Pascoli del sole» belongs to this Association.
- **Consorzio carni 5R** (1983), with a membership of 1.400 small farms disposes of approximately 30.000 head. It protects and promotes production and marketing of quality meat coming from five italian breeds: Chianina, Romagnola, Marchigiana, Maremmana and Podolica. The shops which operate with it are 150. The IGP granted it with the mark «White bullock of the central Appenino».
- **Co.Al.Vi** (1984) has its offices in Cuneo and includes producer and breeders of calves «Piemontese race» and crossbred. Its main object is to promote Piemontese bovines and the marketing of the marked cattle (c.a. 30,000) takes place prevailingly by retailers. The shops that have an agreement with it are mostly located in the provinces of Turin and Cuneo.
- **Conazo** (1978, although the trademark dates back to 1986) is located in Reggio

Emilia and reunite several producers which agree through co-operatives of slaughtering and processing (Unicarni, CMCL in Bologna, Macello Cooperativo at Pegognaga). The certified cattle - both domestic and imported but bred up in Italy for at least 8 months - are approximately 100.000. The Association is an example of integrated production and distribution, since the marketing prevailingly takes place with the mark of the large-scale retail trade (Coop Italia).

- **Consorzio Carne Bovine Garantite,** a second degree association, wich represents Conazo, Coalvi and Consorzio Carne Bovina Documentata. In turn, this association is a member of the **Consorzio Intercarne Qualità** (which holds the mark «European Quality Beef» in Italy) together with the **Consorzio Eccellenza nelle Carni**, that includes firms of slaughtering, processing and distribution.
- **Cunaco** (National Rabbit consortium) is the owner of the Quality Mark "Italian Rabbit" DM 4 August 1982)
- **Consorzio del suino pesante italiano** (Italian Heavy Pig consortium) is the owner of the Quality Mark "Typical Italian Heavy Pig ".

3.2.4 Producers' and trade organisations

- ANAS (National Association of Pig Keepers)
- ANCI (National Association of Rabbit producers)
- ASSICA (National Association of meat processors) It is the association of pork processing operators.
- ANABIC (National Association of cattle breeders of italian breeds)
- UNA (National Union of poultry producers)
- UNALCAB Producers' association
- UNICAB Producers' association
- UNICEB: Union of meat processing firms (this organisation groups mainly medium-little size firms)
- Associazione Industriali delle carni: it groups big size firms in the processing sector
- ASSOCARNI association of slaughter houses
- CIM (Italian Consortium of slaughter houses)

- Federazione nazionale macellai : Butchers' organisation
- ANICOBECA (National Association of Meat and livestock importers and processors). Its members are mainly meat importers.

Section IV - Quality policy

4.1 *General overview of Italian quality policy*

4.1.1 Statutory

According to the Italian Constitutional Law, Italy is a Parliamentary Republic. The President is elected by the Parliament, and the Head of Government is appointed by the President and subject to vote of confidence by the parliament.

Italian Constitutional law allows four types of law:

- ordinary law, approved by both Chambers of the Parliament;
- legislative decree, which is promulgated by the Government for particular reasons of urgency and subject to approval by the Parliament after sixty days; if the decree is not approved within sixty days, it ceases its effect;
- presidential decree, which is a law promulgated by the government but following a mandate of the Parliament;
- regulations, which are technical applications of rules already approved by the Parliament.

Regions can make laws subject to the limits fixed by National laws in the fields of agriculture, hunting, small size industry, tourism, health. The Constitutional Court is the body whose task is the surveillance of the constitutionality of the approved laws.

In the Italian constitutional law Referendum is admitted, but only to abolish laws or specific parts of laws (not concerning fiscal matters, International agreements or defence aspects). A Referendum can be promoted by citizens - or by political parties or even Regional Governments - who collect, in a certain amount of time, more than 500 thousands signatures; if they succeed, the questions must be examined by the Constitutional Court that controls the Referendum is consistent with the limits imposed by law.

4.1.1 General

The basic law on food hygiene in Italy is law n. 283/1962. The main features of this law are the following:

- sanitary authorities (as defined in section 3) can make, in any moment, inspections and take analytical samples in the public places in which food is stored, sold or consumed;
- to produce and store food with commercial purposes a written authorisation by sanitary authorities is needed;
- people involved in manipulation of food must have a declaration of sanitary conformity from the Health Ministry;
- the health authority can order to close temporarily the production plant or the store up to six months;
- the Health authority can also order the retirement of dangerous products from the commerce.

A presidential decree of 1980 contains norms to enforce the cited law, together with the definition of Sanitary authorities.

As far as concerns consumers' protection, a basic rule is the Presidential Decree, n. 224/1988, which enacts the Directive CE 85/374 on liability for defective products. It states that whereas the producer is not identifiable, the seller is liable for the damage. As the Directive leaves the Member States free to include or not agricultural products among the defective products, the Italian law has confirmed the exclusion though, to fall into liability of the producer, it is enough for a product to be packed.

Directives 89/395/EEC and 89/396/EEC on labelling and advertisement are enacted by Legislative Decree 109/ 1992. It states that labelling, presentation and advertisement of food:

- must not induce the consumer to make errors on the characteristics of the product (namely, on nature, identity, quality, durability, origin, production process);
- must not induce the consumer to believe that it has properties able to prevent or cure diseases.

Directive 90/496 on nutritional labelling is enacted by legislative decree n. 77/1993, which states that nutritional labelling is facultative, unless a nutritional information appears on the label or in the food advertisement. Nutritional information must be written in a single table, in Italian language. It is possible, anyway, to add other foreign languages.

As far as quality of agricultural products is concerned, we have already underlined in section 3 that agriculture pertains to the Regions; the Ministry has competence about the acknowledgement of Quality Marks and over Indications of Origin. Moreover, the Ministry can allocate public funds to improve production structures and to stimulate innovation.

4.1.2 Public efforts in the field of meat quality.

National efforts: the "quality beef plan".

In order to improve quality throughout the meat chain, the Italian government has been working for several years to a project named «Quality beef plan».

This plan was approved by the government on the 5th of March 1992. Only three years later, the 8th of February 1995, the European Commission gave assent and in the same year the plan was approved as being in the balance of the Aima.

On the 14th of May 1996 was eventually signed the agreement between the State Agency for Intervention on Agricultural Market (Aima) and the Italian Breeders Association (AIA) concerning a financing of 80 billion of liras (30 million of ECU at the beginning and 10 million afterwards).

In the middle of September of that same year an inter-professional agreement was signed by the trade associations (in pursuance of the law 88/88 «Regulation of inter-professional agreements and products cultivation and sales agreements»).

The repeated delays are to be imputed to both administrative causes and diffidence of the parts involved (breeders and processing). These last were more used to compete directly on the market operators (a competition which was made harsher by reduced consumption and high rates of import) than to co-operate within the inter-professional background of a meat chain.

Line of action followed by the Plan.

The Plan aims at promoting the bovine meat by means of an inter-professional model which is based on two fundamental issues:

- improvement of quality,
- more severe controls;

it provides for an agreement between representatives of breeders and slaughterers, so that the breeder can rely upon a minimum price threshold and a more evident formation of it.

Furthermore, not only the traditional operators (breeding, processing and trade businesses) must be included in the chain but also other partners such as testing, research and promotion structures (Warranty consortia).

From this point of view in order to obtain the financing established by the Plan, producers are compelled to take part to a program of requirements and controls which will follow step by step first the animals and then the meat, so that it will be possible to go back from the shop to the breeding.

The Plan also follows the guidelines of the new communitarian provisions, which from 1992 tend to reduce indiscriminate financing: subsidies must contribute to the fulfilment of specific long-term objectives.

The plan acts upon the following points:

- *Animals for which is possible to obtain grants*

  In order to obtain a grant the breeder must specify the class and the number of head:

  - Class: males under 24 months (class A), fully-grown females that have not calved yet (class E) and pedigree breed bulls;
  - the specified number of head must be representative of the average number of births (the breeder must carefully plan the reproductive cycles, since the maximum number of head on which he will obtain a grant is specified at the beginning of the project).

- *Commitments of the breeder*

- By means his own Association of Producers or Co-operative, the breeder must agree to the inter-professional agreement. Those who are not included in trade associations can appoint either an Association of their choice or the National Association as their representative;

- the breeder must comply with the Document of Breeding Obligations (which provides for the minimum quality standards, formal obligations and fulfilment of all the firms which intend to agree with the Plan: feed, pharmacological treatments, animals welfare, a term of at least 7 months in the breeding farm);

- the breeder must allow the official inspectors of the quality consortia to control the fulfilment of the Document of Obligations;

- upgrading of the stalling system (provided by the Association at the subscription) indicating the number of head per month which enters in the farm;

- identification of the animals with official individual earmarks (Genealogical Books, officially acknowledged National Quality Marks, etc.)

- *The provisions of the inter-professional agreement amongst trade associations*

  On the 16th of September 1996, the Organisations (AIA and ASSOCARNI, CIM, UNICEB, Organizzazione Nazionale della cooperazione) signed the executive program to regulate production (in pursuance of the Document of Obligations) and processing of meat product.

  In detail it is required that:

  - the breeder conveys his production only to a slaughter which is included in the inter-professional agreement and is owning the EEC mark (286/94) or under authorised derogation from the Executive Board of the inter-professional agreement;

  - the slaughterer undersigns a purchase agreement for the animals in conformity with the provisions of the inter-professional agreement;

  - the product (carcasses) corresponds to the classes included in the EEC grid;

  - the price is not lower than that established every week by the Executive Board.

- *Classes of actions to be complied with*

- Actions of trial breeding (maximum 1100 farms); improvement of rationings (770 farms) and experimental prophilactic measures (330 farms); these are carried out according the procedures which are defined within the official national quality Consortia;

- Interventions of prophilactic measures: they must be performed by the Veterinary in charge of the farm or a technical public agency;

- Preservation of breed animals;

- Controls of quality in the slaughterhouses (always compulsory):

- Research and experimentation in a few slaughterhouses.

- *Pass certificate of the cattle*

  The animal which has fulfilled all the obligations of the Plan is covered by a pass certificate.

  This certificate is granted by the Union of Associations of producers and includes a blank space where the slaughter and the classifier will have to record date of slaughtering, resulting dead weight, class of conformation and fattening condition.

  This certificate is produced in three copies and will be used to receive the subsidies.

  At the same time, after having executed the sample controls provided for, the organizations for the control of slaughterhouses send in a report to the technical secretary specifying the number of slaughtered head of cattle and the number of sample tests executed.

Regional efforts

In some Regional Governments quality policy has been the result of the efforts to promote regional products. Intervention programs have been based for the most part on regional labels which frequently cover a large basket of products and are assigned to producers who guarantee to comply with quality norms. According to these schemes, regional governments act in the field of:

- setting quality rules;
- quality insurance;
- control of the compliance with quality rules;

- promotion, financing advertisement, participation to fairs etc.

In most cases, the ownership of the quality label is held by a consortium, whose statutory rules are defined by the Regional Government and that is in great part financed by public resources, at least at the beginning.

These schemes are typical of an early stage of quality policy, whereas public authorities intervene to stimulate the system to pursue better performances. Producers are stimulated to participate to the scheme by the potential advantages of subsidised promotion, and often the schemes represent a stimulus to producers' integration, since these last take part to the definition of quality rules.

Yet, in many cases, the goal of stimulating the participation to the initiative prevails over the efficiency of controls, and scarce marketing experience of the managers of the schemes gets to a low degree of success.

Therefore these schemes are obviously bound to be replaced by more refined ones, in which certification and control are separated from promotion and performed by qualified agencies.

A most significant example of these schemes in the field of meat is that of Veneto, in Northern Italy.

More recently, the debate over quality in the agro-food sector has progressively accepted the principle of separation amongst certification, control, promotion and advertising, and has gained awareness of the need of co-ordination with the national certification system, whose regulation is being discussed at the moment into the Italian Parliament. In most cases, regional initiatives are focusing on areas so far not regulated by the EU (for example foodstuff produced through integrated pest management methods) and on supporting those firms which want to implement quality insurance systems.

The "Paniere Veneto" (Veneto Basket") scheme.

The Paniere Veneto (Basket of Veneto) was established by the Regional Law 11/88. According to this law, the Region entrust the ESAV - Ente di Sviluppo Agricolo del Veneto (Agency for Agricultural Development of Veneto) with the task of registering and managing the use of a collective mark, as well as that of promoting the establishment of a «Consortium for the promotion of Veneto agro-food products». It will be up to this consortium to carry out the real promotion and to check out the conformity degree with the set of rules.

The following table shows the different competencies:

	Esav	Consortium
set of rules	x	
license to use the mark	x	
control of conformity with the law	x	
Co-ordination	x	x
marketing survey		x
control		x
promotion		x

In short, the only two roles pertaining to the Region is that of financing the Consortium activities and of arbitrating the possible claims from the members of the Consortium. The regional law also provides for a Province Commission with the task of «…monitoring the conformity of the products with the standards required by the law».

To fully understand their spirit underlying the development of the Paniere Veneto, it is necessary to remind that this was established on the wave of the debate on healthiness which followed the methanol wine at the beginning of the 80's. Its background was strongly dependent on healthiness and quality issues, which has been the basis for drawing up the rules of production and controls.

Although the healthiness issues were central, the only characteristic which the appellation conveys to the public is that of regional origin. The result is that safety is considered only as a necessary pre-condition, thus becoming far less effective as a differentiation tool.

The formulation of the logo clearly shows that the mark has to be classified among the umbrella-marks, i.e. those which countermark several different products with common origin and quality controls.

The first products to be concerned are wines and many of them were already covered by appellation of origin. As we will see, the large number of processing businesses will be a key factor for the kind of controls which will be adopted.

Membership to the consortium «Paniere Veneto»: 1996

vine and wine growing	27
dairy	8
meat	6
fruit and vegetables	5
poultry	3
other sectors	8

Only 10 of these firms label their product with the mark of the Consortium, while the remaining members only undergo the controls and, if in order, receive a sort of quality certification.

The causes of such a scarce circulation of the mark are different and among them are to be included:

- selectivity of the requirements;

- the large number of well known trademarks especially in the sector of wine and vine growing;

- scarce propensity of large-scale retail trade towards marked products.

All the production rules are focused on the quality firm system, which is based on the assumption that adequate management and methods within a firm are the key factor for quality; moreover, the control of a firm efficiency is far more easier to perform.

The conception of controls on which the Paniere Veneto is based pivots around the so called «check up of the firm», that is a sort of text of admission which is carried out previously to the use of the mark. This covers the equipment, the methods of production, the overall management, the information system on quality[6]. Each firm willing to join undergoes a similar check up and, if suitable, has the right to use the mark «Paniere Veneto» and to benefit from advertising subsidies.

Periodical controls on processing and products are carried out in part by the staff of the Consortium and in part according to agreements stipulated with experts or other associations. For example, the CSQA of Thiene (an officially authorised institute of certification for the agro-food sector) or the Centre for wine and viniculture at S. Michele all’Adige. An important stage in the control of processing is that of the «country

[6] Actually this method anticipates the «quality guarantee» which pursues the ISO regulations. The Institute of Thiene, which operates together with the Veneto Region, is the first authorized institute in Italy.

register», which allows to easily control the use of chemicals.

Each firm sells its products with its own label in addition to the Paniere Veneto. In a few cases, although only within the region, even Coop and Conad have made an agreement with the Paniere Veneto and both marks are on the package.

As to the markets, the mark has allowed a stronger penetration of the large-scale retail trade and yet, with the exception of wine, exports have not incresead significantly.

The promotional activity has been following three different lines:

- general advertising campaigns to promote the mark (including also a periodical)
- campaigns linked to single products or firms
- participation to trade fairs together with CCIA (Chambers of Commerce), provinces, etc.

At first, in order to promote participation, the intervention was almost totally financed by the Region. More recently, the regional financing to the activity of the Consortium has been reduced, thus urging the members to contribute directly to the activity.

4.1.3 Meat quality policy and consumers' behaviour: the role of consumer associations in Italy

The first forms of consumer mobilisation developed in Italy roughly at the same time as in other main European countries: the birth of the first consumer association dates back to 1955.

The evolution of consumer movement in Italy presents nonetheless some peculiarities that set it apart from those which have taken place in the majority of the other European countries; peculiarities have resulted in a delayed and limited development of the movement itself.

About twenty associations are currently operating in Italy are, with a membership that (according to the most optimistic figures) barely reaches 700.000 persons, i.e. about 1% of the Italian population, resulting in a diffusion (and an importance) inferior to that of other European and American associations. Well-structured national associations with a widespread presence, capable of providing effective service to consumers, are five or six at most; specialised publications dealing with consumer issues are rather weak and absent; conversely, the concern with consumer protection in the media is indeed prominent.

In our attempt to monitor the activity of Italian consumer associations with reference to the problem of meat quality, we endeavoured to contact all existing national associations (save for those few which, on account of their orientation towards highly specialised fields - eg. banking and insurance services, public services - clearly appeared not to be related to our area of interest). Twelve associations were contacted; a further association was not directly contacted, but we managed to gather information through the media regarding its activities within our area of interest; in the case of another association, no contact could be made in spite of our repeated efforts.

Also omitted from the category of the associations which had undertaken actions regarding the meat quality issue (and consequently filed under the «No Actions» column) there were an association pursuing a campaign for wholesome nutrition in the schools (activity which was considered to be too generic) and another one still had to supply specific information on its future activities at the time of compiling the present report. Finally, two associations clearly stated that they had not undertaken any initiative of the kind.

The actions of the associations considered to be operating within our area of interest have been divided into four subgroups:

1) information within the association, thus limited to members only, chiefly by means of articles featured on the periodicals published by the associations and distributed to their own members («Internal information» column);

2) information outside the association, mainly through press releases issued by the associations and featured by the media, but also by means of TV and radio debates («External information» column);

3) legal actions («Legal actions» column);

4) pressure activity (through petitions and/or personal contacts between the associations' representatives and those of the targeted organisations and institutions) and lobbying activity («Pressure - Lobbying» column).

As it can be observed in the chart, information, both internal and external, slightly prevails, over pressure - lobbying activity; no association proved to have undertaken legal actions. Three associations proved active in three subgroups, two associations in two subgroups, four in one subgroup only.

Informative activity, both internal and external, proved concerned with the following issues: human safety and health (correlations between BSE and Creutzfeldt-Jakob disease, antibiotics residues in the meat); meat quality (favourable assessment of beef coming from extensive breeding). Pressure - lobbying activities targeting at slaughtering and meat processing industry organisations, national departments (health care, agriculture, industry) and the EU Commission, focused on human safety and health (authorisation of the use of antibiotics on cattle for treatment only, creation of an European food and drugs agency on the model of US FDA, support for sanitary certification measures concerning meat and the related production processes).

Contacted associations	Actions	No Actions	Internal information	External information	Legal actions	Pressure Lobbying
ACU		X				
ADICONSUM	X		X	X		X
ADOC		X				
ADUC	X					X
ARCO		X				
ASSOCONSUMATORI		X				
CDC	X		X	X		X
CODACONS	X			X		
CONFCONSUMATORI	X		X	X		X
FEDERCONSUMATORI	X		X			
LEGA CONSUMATORI	X		X	X		
Movimento Consumatori	X			X		X
Unione Nazionale Consumatori	X		X			
Total N° 13	9	4	6	6	0	5
Percentage values = 100%	69%	31%	46%	46%	0%	38%

4.2 *Product standards*

4.2.1 Labelling requirements

Only in the legislative decree n. 77/93, enforcing the directive 90/496, meat is explicitly mentioned. It states that food products should indicate from which animal species meat contained in it comes.

The following table shows the laws which have followed the EEC directives.

EEC Directives	Italian Laws	Notes
Dir 89/395/EEC and 89/396/EEC on labelling, packaging and advertising food products	Legislative Decree 27/1/1992 nr. 109	
Dir 93/102/EC amending Dir 79/112/EC on labelling, packaging and advertising food products for final consumers	D..P.R. nr. 175 6/2/1996	The Decree amends enclosures 1 and 2 of L. D. nr. 109 27/1/1992
Dir 97/4/EC amends Dir 79/112/CEE concerning the resemblance of the laws of the Member States on on labelling, packaging and advertising food products	Not acknowledged	
Dir 90/496/EEC concerning nutritional labelling of food products	Legislative Decree 16/2/1993 nr. 77	

4.2.2 Conformity

Conformity to EUROP classification is far from being reached in the Italian meat sector. EUROP classification has been used so far only to deliver meat to those bodies authorised to retire meat from the market in order to receive the minimum price allowed by the Community.

Under the pressure of the Commission, that recently has started a procedure of infraction against Italy, the Italian government issued a legislative decree (482/96) which delegates to the Regions the control of EUROP classification. More recently, the Government has proposed a bill which sets heavy penalties to slaughter houses that don't comply with the obligation to classify the carcasses. Moreover, the Bovine National Committee, instituted with the goal of qualifying classifiers, has been revitalised after a long time of inertia; further, one of the main Quality Beef Plan requisites to benefit from the incentives is the conformity to the classification.

It must be said, however, that together with organisational problems in pursuing the compliance to norms, there are some problems of adherence of quality norms to quality characteristics of Italian meat. For example, though White Breeds hardly can be classified in the highest levels, they are strongly appreciated by the Italian consumers. The same can be said of the ovine meat, whose standards are created with reference to the French situation, which produces a heavy lamb, whereas in the Italian situation it is slaughtered much younger.

4.2.3 Origin

Traceability

The EC directive 92/102, which provided a national unique identification system through earmarks of the animals, was followed by new regulations aiming at a registration and identification system of the EC livestock in March 1997. The latest system provides compulsory identification by means of two earmarks and a passport which follows the animal from birth to slaughtering for all head born after the beginning of 1998. From 2000 on, the system will be unified at European level and will provide for a label on meat and by-products indicating nation, place of origin and place of slaughtering, in addition to an identification code.

In Italy, EC directive 92/102 was acknowledged only in 1996 through the D.P.R. nr. 317 30/4/1996 and the delay have caused controversial issues concerning the communitary aid. As a matter of fact, owing to the lack of any general register, the Aima controlled only those animals for which aid had been requested. The EU accepted such a temporary solution for the first two year of application of the new CAP. Starting from 1996, however, aid would be granted only when Italy would have fully enforced the community regulations. Therefore, Italy risks to pay for 1996 aid.

EC Directives	Italians Laws	Notes
Dir 92/102/EEC identification and register of animals Draft bill of regulation 2/10/96 for identification and register of bovine animals Regulations March 1997	D.P.R. 30/4/1996, n. 317 enforced the Directive Law nr. 532 of 21/10/1996 Technical regulations 14/8/1996 for the enforcement of D.P.R.	The D.P.R. provided also a warranty certification for bovine meat, but no enforcing law has been issued yet. Conformity must be achieved within 1/1/2000. The system is based on two earmarks and a passport; both meat and byproducts will be provided with a label indicating complete information on the animal.
Directive 96/93/EC, certification of animals and products of animal orgin.	Bill concerning the rules of the certification system.	Conformity must be achieved within 1/1/1998.

Following the scandal of BSE, it was necessary to provide measures to gain back the consumers. Consequently the origin and the course followed by a product along the chain (from the farm to the final consumer) need to become clear and evident. Under these circumstances, a ministerial memorandum enforced the «Italian brand for bovine meat» (CI).

The main objectives are two. First of all, to guarantee the consumer, being the brand present only with those products which provide severe warranty on origin, breeding and processing characteristics. Secondly, to the chain's workers should be given the possibility to provide information on the animal to the market.

In order to use the mark «carni italiane» (Italian meat), all producers must comply with a series of rules. The animals must:

- be exclusively of Italian farms, where they must have remained either from birth or at least for the last three months before being slaughtered;
- provide adequate warranties on health, veterinary treatments and possible chemically treated feed.

These information must be included in a self-certification which must be issued by the breeder according to a model prepared by the Ministry of Health (Legislative Decree nr. 118 of 1992; Health Ministerial Decree of 28th of May 1992). Furthermore, weather during 90 days previous to slaughtering or birth to animals which are slaughtered at an age inferior to 90 days, had been given any particular substance or chemically treated feed, the certification must be signed also by the veterinarian in charge. It is necessary that this certification is always <u>with the animal</u>.

Slaughtering and dissection can be carried out exclusively within structures which comply with EU rules and the label will be affixed under surveying of the veterinary officer. In particular, dissection laboratories <u>can</u> affix this label only on meat cuts obtained from sides or quarters which in turn show the mark «Italian meat». At last the distributors must save the brand only for the which can prove to have followed as having followed all this course.

After the ministerial decree, new measures have been introduced in order to make clear everything about each animal, from birth to slaughtering. The reference is the law nr. 532/1996, which sets up the «warranty certification of bovine meat». According to this, only the producer which is in conformity with the DPR (Decree by the President of the Republic) nr. 317/1996 certifies the conformity of the animals with specific requirements. These concern:

- birthplace and last stay;
- feeding and stalling systems;
- breeding, transportation and slaughtering.

It must be noted that with the DPR nr. 317/1996 (which carried into effect the EEC directive 92/102 concerning identification and registration of livestock) a new method of identification and classification is being introduced.

Once again the use of such a certification aims at rationalising and simplifying sanitary controls on production quality. The certification must be exhibited in the shops, such as to be available for the consumer. The pursuance of the law contents is dependent on the issuing (within 90 days from the date of enforcement) of a subsequent ministerial decree which will define:

- required methods and standards for certification;
- tests and controls for certification of the producer.

The warranty certification is not yet applied, since the breeders are opposing. Being compulsory, the CI mark imposes conformity with the provided rules, which several breeders maintain as too harsh.

Despite the delay at national level, in the regions several initiatives were undertaken, such as the project for meat certification which was devised by the Agricultural Agency of Marche together with the BovinMarche (see also section 4.3.4). The project has been approved by the European Commission.

Geographical origin

Italian producers are particularly dynamic in the field of typicality, since it is considered a major competitive characteristic of Italian products. Italian governments have strongly backed the introduction of EEC laws 2081 and 2082/92, fighting against interpretations of quality in terms of mere «compliance with safety rules», and affirming the inherent value of those products which are linked to specific localities.

For this reason, well before EEC directives□Italian regulation protected denomination of origin of wine, cheese and ham; in addition, public authorities at several levels have significantly supported producers’ joined endeavours aiming at marketing their products under a same brand linked to specific areas.

EEC regulations have given an important stimulus to this movement, triggering the introduction of modern quality management criteria. In fact, while the italian law states that control are to be performed by producers’ consortia and public agencies have a role of supervision, both reg. 2081 and 2082 state that control structures must comply with EN45011 rules.

The following list (provisional, since other initiatives are on the way) shows how important is Appellation of Origin in Italian meat sector: 29 products and 10 appellations origin for fresh meat have already been approved by the EEC, but the number is bound to grow, when all Italian typical products will apply to EEC to be recognised.

TYPICAL MEAT PRODUCTS IN ITALY:

Already approved	*Still to be approved:*
Prosciutto di San Daniele (DOP)	Salame Milano (IGP)
Prosciutto veneto berico euganeo (DOP)	Salame Cremona (IGP)
Prosciutto di Parma (DOP)	Salame cacciatore (DOP)
Prosciutto di Modena (DOP)	Mortadella di Bologna (IGP)
Prosciutto Toscano (DOP)	Soppressa trevigiana (IGP)
Prosciutto di Carpegna (DOP)	Salame Fabriano (IGP)
Jambon de Bosse (DOP)	Salame felino (IGP)
Lard d'Arnard (DOP)	Salame mantovano (IGP)
Bresaola della Valtellina (IGP)	
Culatello di Zibello (DOP)	
Coppa, Pancetta, Salame Piacentino (DOP)	
Salame di Brianza (DOP)	
Salame di Varzi (DOP)	
Speck dall'Alto Adige (IGP)	
Agnello italiano (IGP)	
Vitellone bianco dell'Appennino centrale (IGP)	
Fassone del Piemonte (IGP)	

4.2.4 Residues

In Italy, to possess or use substances with hormonal or anti-hormonal effects on animals have been forbidden since 1969. The initial prohibition was followed by later decrees, until the 27th of January, when Decree nr. 118 enforced the EEC directives 602/81, 358/85, 469/86, 146/88 and 299/88.

The crucial issue, however, is posed by controls. Firstly, there is a wide black market of both lawful and unlawful drugs. Evidence is given by the very low number of prescriptions which the firms send every year, in addition to the documents related to slaughtered animals, steadily showing that animals are never treated in the 90 days previous to the slaughtering.

Moreover, the official test laboratories (experimental zooprophilactic institutes) do not easily find nor quantify the residues of employed products, especially unlawful ones.

On the whole number of controls to find residues, the average positivity is only equal to 0.3‰ (M. Valpreda, G. Barbarino, L'Informatore agrario 13/97).

However, through a decree of January 1997 which amended the decree 119/92, the Ministry of Public Health strictly revised the whole group of pre-blended preparations, i. e. those preparations which are mixed to water or feed and used for mass therapy. Out of a total of 600, only 85 were admitted, all containing only one active principle. In particular, 67 preparations have been allowed in the chicken sector, 59 in the pork sector and 28 in the bovine sector.

The Ministry explained such a severe cut on the grounds that the documents offered by the pharmaceutical industries were inaccurate and incomplete, especially in reference with residues. The operators, vice versa, maintain that the crucial issue lies in the lack of effective public controls over production, distribution and use of veterinary drugs.

EC Directives	**Italian Laws**
Dir 96/22/EEC, prohibition of use of several substances with hormonal, thyrostatic and beta-antagonist substances. It emends Dir. 81/602, 88/146 and 88/299	Legislative Decree 27/1/1992 nr. 118 enforcing the EEC dir 81/602, 85/358, 86/469, 88/146 and 88/299
Decisione 90/218/EEC concerning marketing and use of somatotropine (BST) Draft bill of the Counsil 92/C24/1, delaying the prohibition until 31/12/1991	
	M.D. 15/1/1969, cattle breeders are prohibited to possess or to use substances with hormonal and anti-hormonal actions. Decree of the Ministry of Health 4/2/1981 Controls on the use of estrogens and anabolic steroids to achieve increase of weight.
Dir 602/81/EEC, 358/85/ EEC, 469/86/ EEC, 146/88/ EEC and 299/88/ EEC concerning the prohibition of the use of a few substances with hormon and thyrostatic substances in animal productions, and relative also to the test for residues on livestock and fresh meat Dir 81/85/EEC, 81/852/ EEC, 87/20/ EEC and 90/676/EEC about veterinary drugs	M.D. 3/11/1981 prohibition to sell drugs containing stilbene, derivatives, foreign salts, thyrostatic substances Legislative Decree 27/1/1992 nr. 118 enforcing the directives Legislative Decree 27/1/1992 nr. 119 enforcing the directives Updated Text (on the Gazzatta Ufficiale nr. 79 5/4/1997) of the Decree nr. 119 27/1/1992
Dir 40/93/EC	
Dir 90/677/EEC and 92/18/EEC concerning veterinary drugs	Legislative Decree 4/3/1993 n. 66 enforcing the directives

4.2.5 Additives

Basic legislation on additives is contained in the law n. 283 1962 and in the Ministerial decree 31 March 1965.

The following are some of the most relevant upgrades of the basic legislation on additives:

- M.D. 14 October 1981
- M.D. 14 April 1983.
- M.D. 1 August 1983.
- M.D. 6 November 1992 n. 525.
- M.D. 2 August 1993 n. 582.

The recent 97/6/ EEC Directive has not been enforced yet in Italy.

4.2.6 General food safety standards

Law 283/62 states that it is forbidden to sell or distribute food:

- Without part of its nutritional elements or mixed with inferior ingredients;
- In bad state of conservation;
- With microbial activity higher than prescribed;
- In state of alteration;
- Artificially coloured;
- With not authorised chemical additives;
- With chemical residues at higher levels than fixed by the Health Ministry.

The law forbids also packaging with materials considered harmful, such as lead o some types of plastic.

4.3 *Process standards*

4.3.1 General Food Standards

Directives of reference on safety are: 93/43/EEC, which imposes the HACCP system on all firms operating in food production and distribution fields; 89/39/EEC (official control of food); and 93/99/EEC (additional provisions on official control of food).

Only directive 89/39/EEC has been acknowledged through the Legislative Decree nr.

373/1993, and the Italian Government should have approved a Draft Legislative Decree enforcing the directive 93/43.

In 1995, however, a Decree of the Ministry of Health (Memorandum 28/7/1995 nr. 21) was issued, illustrating the guidelines for editing the voluntary manuals of correct safety praxis, as provided by the art. 5 of the 93/43/EEC.

4.3.2 Agriculture

The following table shows the main community regulations and the laws which have enacted them. It results that the most recent directives have not been embodied yet into the Italian legislation. Judging it by the opinion press, it is apparent that there are very strong resistance against welfare standards among Italian producers, due to the characteristics of the Italian most diffused production system, based on a high rate of fattening animals for unity of land.

EEC Directives	Italian Laws	Notes
Dir 74/577/EEC on stunning of animals	Enforcing Law nr. 439, 2/8/1978 M.D. 16/2/1980	 Application rules of the law nr. 439
Dir 88/306/EEC safety of animals for sluaghter		
Dir 91/629/EEC safety of calves Dir 97/2/EC amending Dir 91/629	Enforcing Legislative Decree 30/12/1992, nr. 533	The Decree set up the minimum standards for breeding over 6 calves. The law should be completely operative within 31/12/2007 To be aknwoledged within the end of 1997. Not aknowledged yet.
Dir 91/630/EEC safety of hogs	Enforcing Legislative Decree 30/12/1992, nr. 534	Decree: new firms must comply with the standards since 1/1/1994, all firms will have to conform starting from 1/1/1998
Dir 81/166/EEC standards of safety for battery chicken	Enforcing D.P.R. 24/5/1988, nr. 283	
Dir 77/489/EEC safety of animals on international transport Dir 91/628 safety on transport, amending the Dir 90/425 and 91/496 Dir 95/29/EEC amends 91/628	Enforcing D.P.R. 5/6/1982, nr. 624 L. D. nr. 532 30/12/1992	 The Decree partially amends the D.P.R. nr. 624 Aknowledgment within the end of 1996, possible derogations. Not aknowledged.

Organic farming

LD. nr. 220/95 rules the control system in Italy. Ministry of Agricultural and Forest

Resources is appointed as the competent authority for co-ordinating activities pertaining the application of the Community regulations on organic farm; a Commission will judge the controlling agencies acknowledged by the Ministry of Agricultural and Forest Resources and by the Regions; Regions are appointed as the competent authorities for the acquisition of notifications from organic operators, with the exception of the import activity from third countries.

The regulation EU Reg. nr. 2091/91 does not provide specific set of rules for organic zootechnics, but it refers back to international laws (IFOAM) or, whether existing, to the single national regulations in matter of certification of the organic production method in breeding farms.

At present in the European Union, only a few countries (Sweden, Germany, Austria, United Kingdom, Denmark and France) have specific rules for organic breeding, which however are largely different.

In Italy there are no national laws, but only regional laws on organic farm which also provide set of rules on zootechnics.

The Toscana region has been the first to regulate this sector through the Regional Law nr. 31/94, which has served as reference also to other regions (Lazio, Marche….). Toscana adopted the AIAB regulations, in force since January 1992.

In those regions where there are no regional regulations, the single control agency operates following internal rules, conforming with international laws (IFOAM).

AIAB- 1992 Regulations / Regional Law nr. 31/94:

Rules have been set up on the ground of the following criteria: product health; respect of ecological requirements of the animal, environment safety.

Provisions concern as follows:

- *Intensiveness of breeding* Number of head must be proportional to grazing surfaces, with a maximum of 3 UBA per ha.
- *Races* Preferably local races, with strong environmental adaptability.
- *Housing* Permanent housing is forbidden; minimum practicable surfaces are set up according the several species, along with technical standards for the housing

premises.

- *Interventions on anatomy and physiology of the animal*Castration and mutilations are prohibited, with a few specific exceptions. Fertilisation must be natural and only in specific cases insemination is allowed. Embryo transfer are forbidden, as well as embryo and cell manipulation.
- *Feeding* Forced feeding is prohibited;
- *Origin*: feed must be from organic farms, with the sole exception of integrations through non organic feed up to a maximum 20% dry matter in daily ration. Drugs and feed enriched by pharmaceutical products are anyway forbidden. The regulations concern also: the *typologies* of fodder and complementary products e dei prodotti; the *use* of concentrated additives and by-products; and dei concentrati degli integratori e dei sottoprodotti; *suckling and weaning.*
- *Veterinary Activities* Pytotherapy, homeophaty, isopathy and natural medicine are allowed. Only two allopathic medicine treatments are allowed over the whole animal life.
- *Hygiene of premises* The regulations specify the allowed products.
- *Conversion to organic zootechnical production* The regulations set up different times for every single species.

Release of organic production certification:

The farm applies for certification of the organic production to one of the eight agencies acknowledged by MIRAAF;

An expert of the control agency defines the times for conversion or the conformity with the production set of rules, and releases the authorisation to use the specific mark indicating "Regime di controllo CEE" "Controllato da nome-ente" ("Under EEC Control" "Controlled by name of agency"). Therefore, he sets up the schedule of the control visits and gathers the data on farm methods.

The control agency must report the list of certified farms to the Region, and must gather all technical data on production following a questionnaire specifically prepared by the MIRAAF, which is common to the all EU countries. The regions report the data to the MIRAAF, which gathers and processes all data at national level. The questionnaire does not provide data gathering on zoothecnics, since the sector is not specifically regulated by the Reg. EU 2092/91.

Regions are in charge of supervising the correct certification from the control agencies on regional territory.

4.3.3 Slaughter/Processing

Sanitary standards for production and marketing of fresh meat are provided by the directive 64/433/EEC, which in time has been largely modified and upgraded. Anyway, the directive which deeply changed the sanitary regulations was the 91/497/EEC. In addition to establish self-control with different typologies of plants and qualification to operate only with EEC stamp, this directive imposed both operative and structural obligations on the plants. Although all the postponements granted by the directive 91/498/EEC, in Italy its actual application has proved to be difficult - currently not all plants have conformed with the law. The legislative decree nr. 286 of 1994, enforcing directives 91/497 e 91/498, delayed adjustment of plants until 30/6/1996; then, further postponements have allowed public slaughtering plants to be operating without EEC stamps until 30/6/1997, while smaller plants are allowed to operate until 31/12/1996.

Industrial slaughtering plants owning the EC stamp were 322 on 28 of January (311 private and 11 public) versus 221 on 31st of December 1996.

More than the hygienic standards, the issue of the "optimal dimension" of a slaughter house is at the center of the debate. In Italy, the difficulty to enforce quality standards and to make veterinary controls made the National government be oriented an orientation in favour of the concentration of slaughter houses into very few plants. It has been noted, however, that this could bring to "erosion of quality" and increased problems for farmers, especially those far from slaughter houses and in marginal areas.

The European Structural Funds have given Regional Governments the opportunity to stimulate the restructuring of the network of small-medium size slaughter houses, so that the policy of concentration has been - to a great extent - defeated.

Meat products are regulated by the legislative decree nr. 537 of 1992 (which enforced directive 92/5/EEC); veterinary controls are also performed by the authorities indicated above. The Decree also provides for self-control in meat products firms; for meat preparations, instead, only analytical controls are provided (D.P.R. nr.227 1/3/1992).

EC Directives	Italian Laws	Notes
Dir 64/433/EEC and modifications. Production and marketing of fresh meat. Dir 91/497/EEC amends the dir 64/433 and dir 91/498/EEC postponemnt and dir 92/120/EEC Dir 92/5/EEC amends and updates dir 77/99 and amends dir 64/433 Dir 95/23/EEC amends dir 64/433	 Enforcing Legislative Decree 18/4/1994, nr. 286 M.D. 13/6/1994 M.D. 23/11/1995 Decree 14/10/1996 L. D. 23/10/96, nr. 542 Law 23/12/1996, nr. 649 Law 19/12/1992, n. 489 and Legislative Decree 30/12/92, nr. 537 D.M. 19/3/1996, nr.251 Enforcing L.D. 23/11/1995	 Dir 91/497 imposes operating and structural obligations on plants, and set up self-control in the fresh meat productive firms. Conformity should have been achieved within 1/1/1993. Dir 91/498 delays the adjustment of structures until 31/12/1995 technical procedures for the application of the Legislative Decree nr. 286. amendments to the Legislative Decree nr. 286, allowing plants or dissectioning laboratories to operate until 31/12/1996 amends Decree nr. 286 allows public slaughtering plants to operate without release of permission nor EEC stamp until 30/6/199; allows small slaughtering firms to operate until 31/12/1997 The directive establishes self-control for the meat products firms. The decree enforces the rules on self-control. amends L. D. nr.537 amends L. D. nr. 286 18/4/1994
Dir 657/88/EEC production and trade of minced meat	D.P.R. 1/3/1992, nr. 227	only analytical controls are provided for «meat preparations»
dir 94/65/EC		
dir 71/118 amended dir 92/116/EEC	acknowledged	
	D.M. 27/1/1988 D.M. 16/3/1994	sanitary rules for packaging in modified pressure of fresh meat sanitary rules for packaging in modified pressure of specific food products
dir 93/43/EEC on safety of food	a legilstaive decree enforcing dir 93/43 has been approved Decree of the Ministry of Health 28/7/1995, nr. 21.	The directive imposes the self-control system HACCP to all firms of food production and distribution. It reccomends the application of the rules UNI EN ISO 9000. Last conformity term was 14/12/94 Guidelines for editing voluntary manuals for correct hygienic praxis following the directive 93/43

The industrial private firms of national importance has their own quality assurance systems and most of them have been started the procedure to obtain the ISO 9000 certification.

UNI (Italian Unification Organization) produced last year processing rules regarding three typical processed pork product Salame Milano , Salame Felino and Mortadella. UNI technical Commette for meat is elaborating two Norms respectively for fresh beef and fresh pork that are not available yet.

The Italian Association of Slaughter and Processing firms, ASSICA, has elaborated a Manual to apply the HACCP methodology to the slaughter houses and meat processing plants according to the Directive 93/43.

The poultry sector in Italy is highly concentrated and based on share-breeding contract between industrial animal feed firms or slaughtering and processing firm. Most of the firm are represented by group of vertically and laterally integrated firm that control millions of head. Each group has its own standards and its production rules that are considered a competitive tool and are kept strictly secret. A great part of the production rules regard prevention of disease as well as the hygiene of the animal from the egg opening. The whole system is based on the self control by the breeders that are supported by the technicians and the vets employed by the industrial firms.

ISO9000

The Italian certification system is going through a period of great stir. As indicated by most recent statistics, annual rates of growth have scored over 100% from 1993 up to the first six months of 1996. The structural frame is therefore extremely fluid and new regulations are required. At present several bills have been advanced but they do not show remarkable differences.

At present only 3 certification ISO 9000 firms are operating in the meat chain, although a few initiatives are in progress with the purpose to conform the productive system to these standards. The delay of meat sector in responding to the emerging demand of certification has to be attributed to the different factors (biological, technological, economic and environmental) interacting along the chain which are difficult or even impossible to be controlled.

To understand this matter of fact it is possible to analyse the single subjects belonging to the chain: each productive, processing and trade unit willing to benefit from a quality system must be bound to a series of obligations.

Every request of certification has to be followed by the establishing of a structure and an efficient organisation system, able to ensure lasting quality.

a) zootechnical breedings: it is not always possible to match and maintain strict productive standards. The obtained product can vary according to the environment, the location and breeding methods (wild or stalled).

About the Italian bovineculture it can be said that in addition to a small number of large sized firms operating through the re-stalling method, a myriad of small breeding farms follow the line cow-calf. Thanks to the higher standardised productive processes the first may frequently obtain a product showing specific characteristics, while with the second the offered product shows a remarkable degree of variability.

It is true that on one hand this variability is a limit for planning and conformity with a certification system; yet on the other hand it can also represents an important exploitable factor in order to distinguish and improve the product.

Within a logic of improving quality the focus is more on the product than on the system: the spreading trend pertains to those quality marks which can guarantee the inherent characteristics of meat (healthiness, sensorial and nutritive quality) or those typical production which codify the characteristics of the supplied product such as to distinguish it from similar products of the same class;

b) first and second processing structures: these structure, both public and private, accomplish different services: slaughtering, processing and fitting for transportation.

In these structures quality means above all technology, which improves the efficiency of industrial productive processes. From this point of view, the certification system is only an additional factor towards quality.

In Italy, however, these structures show rather complex conditions and some of them are still awaiting for an in-house control system. In fact, the meat sector suffers from the problems linked to the reorganisation contained in the EEC directive 91/497, which was enforced by the legislative decree 286/94. Renovation of the structures and up-dating of productive processes according to the EU parameters are compulsory, to the end of standardising slaughter activity, dissection laboratories and cold stores dealing with red meats within their territory.

The delayed acknowledgement of the law was initially due to the difficulty in separating the necessary competencies and then to the actual management of the crucial control points, thus contributing to the scarce diffusion of the certification system.

Nonetheless, it can be said that the adoption of a certification system will be the next step along the way of integration and capacity in the meat chain;

c) trade channels: there are several different kinds: small retail, local markets, distribution chains.

Even if in the past the cost factor was more decisive than quality, quality product is gaining more and more importance, as it can be read in the choice of a few distribution chains which nowadays include quality guaranteed products in their stocks and not only products with label signs.

Nonetheless the market trend towards upmost punctuality in delivery, promotion, lasting quality and terms of payments, if not crucial with the largest trade channel the certification system becomes at least a further useful strong factor.

It is not only important to adopt technological rules in order to guarantee healthiness and hygiene of the supplied product, but also to provide measures (organizational, managerial and directive) able to pursue a certain competitive benefit.

4.3.4 Retailing

The fresh meat retailing system in Italy is still based on the traditional butcher's shops. They sell about the 70% of the whole traded meat with small differences between beef and chicken.

Although the market share controlled by the big retail chains is rapidly increasing, as meat is considered a «fresh product» by consumers, the traditional way to sell the product that is sliced at the moment of purchasing is the main reason for the surviving of butcheries.

Packed meat and convenience meat food represent a significant market segment for chicken and processed pork meat. For beef and fresh pork meat there are few experiences represented mainly by trade mark products like «Pascoli del Sole» and «Carne con Amore». The first one is a beef trade mark owned by the biggest processing factory we have in Italy, INALCA. The second one is a mark mainly for beef but also for fresh pork meat owned by the leading retail chain Coop. Both marks are firm's quality marks based on integrated standards .

The current meat retailing system has not introduced significant quality assurance schemes.

Sanitary controls are executed periodically by the Regional Sanitary Agency (ULSS) inside the retailing points based on microbiological safety of food and selling context and the functional state of freezers, as well as control on the hygienic and sanitary condition of selling staff.

The main law regarding the quality assurance is also in this case the Directive 93/43.

The HACCP methodology at retailing level is not generally diffused, but it has been adopted only by the big retail chains. These chains, for example COOP, have specific «internal rules» on the quality management of the packed and bulk product and on the hygienic management of the selling structures and tools.

Most of the initiatives realised by producers Association or firms regarding quality policies issues do not involve the retailers or do it in a very marginal way: all the trademarks guarantee very strictly rules of meat production, processing and transport, while the management of the product at the retail level in not regulated, apart from the advertising and promotion activities.

The trademark owner, often a Consortium or a producers association control the outlet to monitor the correct use of the mark to identify their meat. The same controls should be made by the Anti Fraud Service of the Ministry of Agriculture.

A singular experience in this field is represented by the project BOVINIMARCHE the Regional beef breeders Association of Marche region, who introduced a meat certification system in the selling point. The certification system is based on a document registering each purchase of meat and containing all the information about the breeder, the breed of the animal, the slaughter age and weight of the animal, thus guaranteeing of the respect of the production rules.

The certification system is based on the production of an electronic card (with microchip) for each slaughtered animal containing all the relevant quality data.

The e-card is delivered to the butcher when he buys the meat from the slaughter houses or the wholesalers. Each associated butcher has a minicomputer capable to read the e-card and to update the database containing all the quantitative and qualitative data of all beef meat that is present in shop at each purchase. The minicomputer is connected to a printer, so to provide a certificate to guarantee the consumer about the beef origin and production process every time the meat is sold. This certification system has been introduced immediately after the BSE scandal in all the butcher shops operating in the Marche and associated to two different certified meat producers associations: 5R and Carni DOC. The first one certified that the meat comes from Italian breed (in this case Marchigiana) and that the animals are bred and fattened with traditional local techniques; the second guarantees the meat quality coming from controlled feeding techniques and certifies the absence of hormones or other chemical additives.

Integrated standards

Final quality of a product is the result of integrated processes related to the whole chain that links production to consumers. This is more evident in food, where organoleptic and sanitary quality depends on the respect of technical parameter in all the different chain stages.

Consequently all the quality policies introduced by different operators of the chain are based on integrated quality standards.

Trademarks that certify the quality of meat have been introduced in Italy since 1984. All of them have a volunteer character, although some of them are recognised by the National Authority.

In the next paragraph we will illustrate the quality policy and the organisational aspects of quality marks promoted by actors in each relevant stage of the chain.

The "Carni con amore" (Meat with love) scheme

An important experience is that of CoopItalia, the biggest retail chain in Italy, with the two brands "Carni con amore" ("Meat produced with love") and "Frutta con amore" ("Fruit produced with love"). The project was started after that a series of food scares (Chernobyl, Ethanol wine and hormones in meat) had severely undermined the consumers" trust on food. Its conception is quite original in Italy, in that it has implemented a "quality system" extended to hundred of farms (about 450), 12 slaughterhouses and several middlemen (Gatti, Valli, 1995). It is based on a written blueprint undersigned by the interested parts by which they guarantee to follow specifics norms of production (species, breed, composition of feed, allowed or prohibited drugs, conditions of slaughtering, transportation). Furthermore, CoopItalia set up a framework of controls and imposed an information system on the farms involved that keeps records of each slaughtered animal.

The product and sanitary quality of bovine meat is guaranteed by a system of controls, inspections and arrangements. The agreement provides for the conformity with rules concerning as follows:

The animals

- agreed breed or crossbreed
- origin (national and when foreign, the animal must be bred within national territory for a from 4 to 7 months term)
- CO.NA.ZO. earmarks with progressive numbers and

registered trademark to guarantee the breeding conditions established in the Document.

The breeding

- structures, equipment and management typology must comply with the present Document.
- adequate environment
- sanitary inspections
- controls
- compulsory stock forms[7] for each animal.

The feeding

- allowed feed (those included in the Ministerial Decree of the 2nd of May 1985 and further modifications, and amongst them the most suitable according the CO.NA.ZO. technicians)
- assistance to the breeders

---

[7] The stock forms show identification data of the breeder and are referred to the kind of animal. In particular, trade name, address, place of breeding and total capacity are indicated for the breeder. As to the animal, it is necessary to specify earmark, colour, number of males and females, average weight at arrival (kg.), kind of stalling, recovery stable. In the document there is a blank space on footpage to be filled with notice on animal conditions at arrival, feed rationing, insecticide and anti-mould treatmens, prophilaxis and vaccines (both collective and individual), controls of the CO.NA.ZO., number of head delivered to the slaughetr or dead during the cicle.

- periodical laboratory tests on nutritional substances in order to detect polluting elements or their possible source in grounds which are at risk because of the typology of the received treatment
- no use of androgenic, estrogenic, anabolic steroid, hormonsimilar, thyrostatical, beta-antagonist, somatotropic and cortison-based substances; this last is allowed only and exclusively for therapeutic use
- controls on substances necessary to prophilactic and therapeutic treatments

<u>The slaughtering</u>

- in addition to the earmark a compulsory code number, properly documented, to ensure that slaughtered animals or parts can be identified
- controls to guarantee healtyness during slaughtering
- conformity of the structures
- sanitary and product controls.

Among the controls on slaughtering, it is also used a new histologic methodology which was devised with the co-operation of the CO.NA.ZO. and has proved to be more sensible than the traditional one.

The controls carried out by the CO.NA.ZO.:

- quarterly controls for breeding
- fortnightly controls for slaughterhouses
- two-monthly controls for analysis and tests.

Furthermore, the CO.NA.ZO. must allow the Coop Italia supervisors to enter periodically the breeding and slaughterhouses in order to carry out inspections, controls and samples.

The resulting goods undergo a final trade inspection of a Coop Italia buyer and are classified in conformity with the EEC regulation 1208/81.

In case of positive result, the supervisor stamps an identification mark on the goods, to ensure that the all the Document requirements have been met.

On the wave of CoopItalia, several supermarket chains have launched brands positioned on the same target of «Carni con Amore», that is focusing on an idea of «controlled meat», both as private labels (as in the case of Standa, with Natura Più) and as industrial labels (as «Pascoli del sole» by INALCA).

The "I Qualità Eletta" scheme

I^ Qualita' Eletta is a quality mark promoted by the Associazione Carni Trivenete, a producers association operating in North East of Italy.

This trademark is a good example of an integrated chain quality policy within a contractual linked chain. The quality meat sold under this mark is produced in independent breeding of different size and breeds that have their own contract with industrial slaughtering and processing firms. These, in turn, have contracts with traditional butchers who focus their quality policy on certifying the origin and the safety of the beef. The Associazione Carni Triveneto operate as a sort of director in homogenising the quality policy of the different actors. The Association makes the quality controls using these specific tools: it co-ordinates all the technicians operating at different stages producers, slaughter houses and transport activities. Technicians are responsible of tests on the different production processes and laboratory analysis. They are the only ones that can authorise the use of the quality mark that certify the correspondence to the integrated standards.

The Key features are represented by :

1. The control: the whole chain is controlled at each stage and specific rules are prescribed for all the critical points affecting directly the quality of the meat.

2. The guarantee of animal health and safety and organoleptic quality of meat: all the phases from the production of animal feed to the delivery to butcher shops have to be performed according to specific rules. The rules specify also all the controls held at different stages: fodder and all the other feeds are analysed along with the animals during the fattening period, when slaughtered and at the arrival at tin the butcher shop to detect diseases or chemical additives as hormones or antibiotics and microbiological alteration and so on. All the breeders and processing firms operate with quality assurance schemes approved by the Association Carni Trivenete.

3.The certification: all the animal are identified and the beef has a certificate specifying all the guarantees for the consumer.

4. Trademark: all the beef is identified by a trademark. The correct use of the

trademark is guaranteed by the Association Carni Trivenete that make specific controls in all the associated butcher shops.

The competitive advantage for beef Qualità Eletta is the correspondence to different organoleptic quality specificity related to breeds and breeding techniques (heterogeneity of organoleptic characteristic) that means to different segment of consumption. At the same time the genuineness and the identification of origin of the animal are guaranteed (homogeneity of sanitary and service quality aspects) with a limited increase in price if compared with other quality beef products.

The control costs are high but counterbalanced by the decrease in transaction costs in the different stages of the chain and by higher price of the beef of consumer level.

The "Pascolo del sole" scheme

PASCOLO DEL SOLE is trademark owned by INALCA, the biggest beef processing firm in Italy.

The quality strategy is based on the three following aspect:

- Controlled breeding management : homogenous feeding system based on a scientifically balanced diet, periodical analyses on the animal health condition.
- Process Quality Assurance System: INALCA has an internal quality assurance system for all the beef processing activities.
- Packaging: This is the key competitive feature: the controlled meat guaranteed by the trademark Pascolo del Sole could be immediately identified by the consumers with no doubt, there is a direct linkage between the producer and the consumer. The packaging, (using controlled atmosphere) consent to keep the organoleptic characteristic of the beef for a long period (two weeks) without freezing: so that the product still retains its «freshness content».

The Coalvi scheme

The Coalvi - Consorzio Allevatori Vitelli per la produzione di carni garantite di razza Piemontese (Consortium of Calves Breeders for the Production of warranted meat of Piemontese breed) represents a good example of how an efficient marketing strategy can transform meat from anonymous "staple" into a "quality product" which is clearly recognised by most consumers.

The present Coalvi, which was acknowledged by the former Ministry of Agriculture as a "Quality Mark", was established in 1984 although the promotion and warranty activities had already started in 1968 and had strenghtened in 1975.

Today the Coalvi takes part to all the most important initiatives of the EEC about quality beef: from the Regulation 2081/92 for the aknowledgement of the Protected Geographical Indication "Fassone del Piemonte" to the Regulation 1318/93 for the promotion of the "European Quality Beef".

The key factors of the Coalvi marketing strategy are to be found in the "target market" (i.e. all the possible purchasers) and the definition of the "marketing mix" (the variables under the firm control able to reach the established target).

The way followed by the Consortium has been that of focusing on a well defined market segment (deeper knowledge, ability to obtain loyalty of the consumers, a product well distinguished from the competition).

Anyway, given the high costs for the quality characteristics of the meat Coalvi of Fassone del Piemonte, the better choice was undoubtedly that of looking for a niche in the market among the middle-high income consumers, who are demanding, know the difference among the several meats and use correctly all the beef cuts.

In order to reach this target and make it purchase the meat "Coalvi/European Quality Beef", the tools available to the Consortium were: product, price, distribution and promotion.

As to the first one, it can be said that the whole strategy marketing we are illustrating is based precisely on the characteristics of quality of the product. These justify the existence, the protection and the promotion of a "quality Mark" able to differentiate this kind of meat among all the others.

The peculiar characteristics of the Coalvi/European Quality Beef are the following:

- Piemontese: animals have born and are bred in Piemonte.
- Fassone breed.
- Controlled: beef is produced and sold only within structures controlled by the Consortium.
- Warranted: trough self-control, breeders warrantee the complete reliability of the product.

- Genuine: beef is produced in conformity with a "set of rules of production" which prohibits maize silage in the last stage of fattening.
- Quality: the mark Coalvi was acknowledged by the Ministry of Agriculture through the ministerial decree 1st of March 1988.
- Certified: beef is covered by an Identification Certificate of the animal with all useful information on its origin.
- Lean, Tender, Juicy: based on scientific tests.
- European: through the request for IGP (Protected Geographical Indication) following the EEC Regulation 2081 and through the active participation to the "European Quality Beef" plan according to the EEC Reg. 1318/93, the beef Coalvi of Fassone del Piemonte is well integrated in all the initiatives of the European Community for European quality meat.
- Trademark: a specific mark distinguishes the beef and separates it from competitive products or, even worse, anonymity.

As to price, it is necessary to remind that the production costs of the meat Coalvi/European Quality Beef are high (stalled breed, intensive breeding, little grazing, small sized firms, etc.), demand trend is stagnant or even dropping, and competition is always more unscrupulous, especially about the price variable.

To the Coalvi/European Quality Beef price is therefore a crucial factor and yet it has been used as a communication tool, similarly to most quality products in other sectors: a good product is different also in price.

The marketing strategy of Coalvi was strongly affected by the socio-economic structure of Piemonte, using a "short" or "direct" distribution channel with a reduced number of intermediaries and above all avoiding the structured large-scale retail trade.

This choice - selective if not totally exclusive - is well motivated by the respect of local habits and tradition, where local butchers do sell the Fassone beef, guaranteeing the correct processing of the meat and its improvement through selected cuts.

Anyway, in Piemonte the quality and costly beef from autochthonous breed is still distributed only through the traditional butcher shops and in particular in the shops under license from Coalvi/European Quality Beef, covered by the above mentioned warranties.

Since 1978 promotion has been most carefully prepared by the Consortium.

An image of quality trademark was particularly important in this case and such an objective can be reached only through a decisive differentiation of the product, clear and concise messages able to convey the peculiarity of the beef Fassone del Piemonte which is produced within the "European Quality Beef" plan.

The advertising campaign of 1995 on the press, through the radio and posters with a well known drawing by Guido Crepax (Valentina) and the message "warranted Pleasure" was supported with publicity, promotion e merchandising echoing the message and undoubtedly reached its objective.

The extremely satisfactory results proved the existence of a wide range of consumers who need only earnest and reliable information (which at table can be empirically tested) to be convinced to purchase quality meat.

The "Italian heavy pig" scheme

The "Italian Heavy pig" is an important standard in pigmeat production, acknowledged through the Agriculture Ministry according to the procedure depicted above, by a Ministerial Decree (12 November 1986). The Quality mark, "Suino pesante italiano tipico", is owned by a consortium of producers, which is responsible of the controls of compliance to the standard. As in the case of the other quality marks, the inclusion among the standard of the Italian origin of the arose a conflict with EU legislation, so that it is likely that the standard will be regulated under the 2081/92 regulations.

The scheme concerns:

- Meat characteristics: meat must not be too dark or pale, with too thin coverage fat;
- Age and weight at slaughtering; about 160 kg minimum 150 kg; minimum age 270 days;
- Breeds: Large White, Landrace and cross fertilisations among them;
- Morphology: as reported in the genealogical book;
- Feed: it is forbidden to use: fish oil, Greek hay; in the second step of fattening also rice by-products, meat residuals, bio-proteins are forbidden;
- Identification and traceability: on the identification mark, to be applied within 20 days from the birth, it has to be indicated: the province code, month of marking,

identification number of the farm. The mark can be conserved if along all of the steps of the process the pig maintains the adherence to the standards; otherwise, the mark will be canceled;

- Procedures of control and documentation; the fattener must demonstrate that modalities of production comply with the standards.

The "Italian chicken" scheme

As poultry sector in Italy is greatly dependent from abroad (especially for genetic and reproductive materials) there is only one quality mark that prescribe as a rule the Italian origin of the fattening animal. All the chicken marketed with the quality mark "Gallo rurale tipico Italiano" recognised by Italian government in 1990 (M.D. 17 December 1990) must come from eggs produced in Italy only of two Italian breed: Ancona e Golden Comet. The production rules contain as well all the tools for the traceability of the meat coming from poultry bred according to the quality standards.

The poultry feed has to be produced in Italy at least at the 65%.

The disciplinary contents both the standards concerning bred animals when ready to be slaughtered (eg skin colour, weight, anatomic characteristics etc) and those concerning the characteristics of the breeding structures (dimension. temperature and humidity etc).

The quality mark "Gallo Rurale Tipico Italiano" is owned by a producer Association located in Ancona who is responsible for the control in the producing farms and in the processing plants.

The same association has made three more production procedures manuals for different typologies of chickens and has made a request to EU to have the four of them recognised as quality marks according to Reg.2082/92 (Specificity certificate) Actually 500.000 chicken/year are marketed under the quality mark "gallo Rurale Tipico Italiano" packed as whole carcass or in parts, especially in the Centre of Italy.

Section V. Conclusions

There is a central aspect of the Italian food sector which could be considered the starting point for quality policy: diversity.

As known, Italy had been a mere geographical entity until the beginning of the 19th century, and the process of political unification took more than one century; cultural unification has been even slower and in many cases incomplete. The great variety of environments, agricultural systems and traditions generated a great variety of food products which have maintained a strong linkage with the locality in which they were originally produced. The great openness of Italy to contacts with foreign people allowed Italian typical products to become very well known abroad, fostering the development of well established «agro-food districts» based on little firms closely integrated at a local level.

It should not generate surprise, then, if Italian consumers associate quality of Italian food mostly to the zones of origin and to the related environmental values and culture.

Being tradition and natural factors at the top of the concerns on quality, first of all this is intended in terms of sensorial characteristics; in those fields where craftsmanship is still widespread, industrial products and processes stir up distrustfulness among the consumers.

A certainty over product origin is also a warranty of quality in terms of hygienic safety; traditional methods, such as seasoning or smoking, are been experienced as healthy enough.

The attitude of Italian consumers to look for taste and sensorial characteristics, and give health for granted within a system based on traditional methods, is maybe one of the causes of the inefficiency of sanitary controls. The fact is that, as we can see in the slaughtering sector and even more in the dairy sector, rules aiming at improving quality standards are seen as creating a trade off between sensory quality and hygiene: in many regions dairies which are considered among the best cheese-making are completely out of law in terms of sanitary parameters.

Another source of diversity comes from the extremely high number of operators involved in all stages of the agro-food chain. Though this is a relevant source of complexity and inefficiencies in the system, it is important to highlight that in many cases these actors play an important role in the construction of quality, and that a policy only aimed at simplification should consider the trade-off among simplicity and perceived quality.

A third source of diversity comes out of the administrative system, based on a great number of regulatory and controlling agencies. In the field of food, sources of legislation in Italy are both the central Parliament and the regional Assemblies, but also Provinces and Municipalities can take initiatives in the field of promotion. As far as administration is concerned, competencies are often split amongst several different Ministries (Industry, Health, Agriculture), causing most frequently conflicts or redundancies.

From this background we can start to analyse meat quality policy in Italy. On this respect, it is very important to take an evolutionary perspective, since Italian system is undergoing a rapid process of change. Three ideal typical models of quality system can be singled out:

- <u>Traditional systems</u> are based on small circuits, in which consumers and producers are rather close to each other. A high degree of naturality of production processes and the artisan nature of processing of the raw material are sources of great heterogeneity in the qualitative characteristics of the product. This brings to a rather high opacity of the parameters necessary to appraise quality of the bought product, so that the butcher plays an important role in ensuring quality. Representing the interface between consumer and producer, the butcher perceives the consumer needs and translates them to the producer. Owing to the high informality of such a process, quality is being continuously negotiated among these three basic actors.

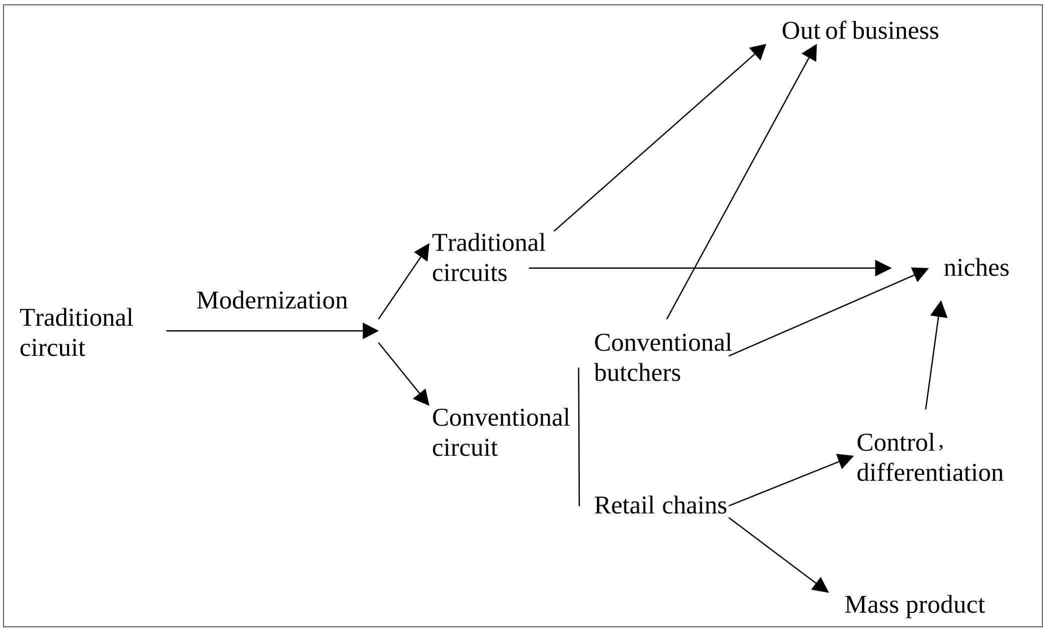
The system is fundamentally based on trust: the consumer has a personal knowledge of the butcher, the butcher has a personal knowledge of the producer, and each of them interacts with the others on the basis of trust. Moreover, the choice of both butcher and producer is based on personal reputation.

- <u>Modern systems</u> are characterised by the enlargement of the circuits of production and consumption. The number of involved actors increases and the chain from producer to consumer becomes longer, so that personal trust is no longer possible as it was in the traditional systems. Quality is formalised into standards which are based on few criteria, mainly based on morphologic or hygienic classification. This level of coarse formalisation brings to a standardisation of productive processes; many quality characteristics, which in the traditional systems were appraised through negotiation, are lost, so that erosion of quality appears. Since personal knowledge among actors of the system is in great part lost with the enlargement of the circuits, personal reputation and trust are progressively replaced by brand reputation and loyalty.

- Post-Modern systems benefit of the improved technologies of communication and transport; organisational efforts are concentrated upon the objective of promptly reacting to the consumers' needs. Compared with modern systems, formalisation of quality into standards is carried out at a higher level, thanks to the improvement of the system of standards production, control and quality insurance. In a post-modern system production of standards is based on monitoring the consumer needs. Within such a system, standards are languages created through interaction and are continuously updated.

Circuits of production-consumption can consist of long distance relationships, but advanced communication systems allow the direct connection among producers and consumers (or retailers). Brands are still very important, but trust is brought back in, since long term relationships are looked for to keep transaction costs lower and to perform learning-by-interacting advantages.

In a real situation we cannot find the above typologies in isolation. Traditional, modern and post-modern live together and are also combined together. Turning back to Italy, the development of the meat sector can be represented as follows:



Until the sixties, the traditional system was prevailing. Around the seventies, traditional systems began to evolve, and «conventional» circuits appeared. This was a time in which stock markets had a key role in the chain. Since they concentrated demand and supply, both for butchers and retail chains, they stimulated the adoption of quality standards throughout the chain. Alongside the conventional circuit, which developed especially in the big towns, traditional circuits maintained an important role both in rural areas and in the medium-small towns.

From the beginning of the eighties, retail chains gained increasing shares of the total throughput; pork and chicken, once linked more than beef to traditional circuits, experienced faster innovation, based on concentration and introduction of industrial methods of production. Conventional butchers suffered more than supermarkets from the perceived erosion of quality produced by standardisation, so that a part of them, as well as many traditional butchers, went out of business. In the most advanced situations, retail chains started to enter the era of horizontal competition (i.e., among stores of a same typology), and centred their strategy upon store loyalty. Private labels were increasingly conceived as a way to give a warranty of products quality to the consumer, and in order to link private labels to quality insurance control programmes were set up, which stimulated innovation throughout the chain.

In the meanwhile, small shops (both traditional and conventional) reacted to the increasing number of supermarkets and developed niche strategies; traditional butchers underwent a process of «gentrification», which responded to the new wave of appreciation for tradition and typicality and combined traditional traits with innovation in the fields of healthy standards and of marketing. Conventional butchers linked themselves into chains vertically integrated.

The recent evolution shows that the market forces themselves have chosen a way to modernisation which embodies diversity; consumer increasingly requests products with clear identities and with a significant content of tradition.

The Italian Quality policy faces nowadays a trade off between simplification, which could cut the rate of illegal practices and could make controls more effective, and maintenance of diversity, which is also an important source of quality. For this reason the issues concerning who makes the standards, how they are made, the organisational evolution related to the definition and enforcement of the standards are those most urgent in the Italian case.

References

Associazione Italiana Mercati Bestiame (a cura di), (1995). Indagine conoscitiva su un campione di mercati della Comunità.

Associazione Italiana Mercati Bestiame, (1991) I mercati bestiame: consistenze e funzioni. Modena.

Bonezzi A., (1996) Carni: un futuro a libero servizio. **Largo Consumo**, 5.

Borzi N. (1997) Il macello pubblico fa "dumping". **Agrisole**, 11-17 aprile.

Brido L., Fiorani L., Gatti S., (1992) Un distretto agroindustriale:l'attività di trasformazione di carne suina nel modenese. **La Questione agraria**, 45.

Brugnoli A. (1993) Avicoli tra declino e rivitalizzazione. **Largo Consumo**, 11.

Canali G., Landini R. (1995) Il prosciutto, **Strategie e competitività nel sistema agro-alimentare. Il caso italiano.** Franco Angeli, Milano.

Cantarelli F., (1993) I mercati bestiame in Italia, relazione tenuta alla 10th General Assembly Convention of A.E.M.B., Shannon, 1-3 luglio.

Comegna E. (1996) Le norme sul trasporto degli animali. **L'Informatore agrario**, 14.

Della Casa R., (1992) Carni bovine: debolezze da monte a valle. **Largo Consumo,** 2.

Endrighi S. (1990) Le filere delle carni, **Il sistema produttivo delle carni e dei prodotti carnei.** Accademia Nazionale di Agricoltura, Bologna.

Fabbro D. (1997) Bovini, dal ministri Ue la “carta d’identità”. **Terra e vita**, 14.

Gamberini A. (1997) Il farmaco veterinario agli esami di riparazione. **Informatore zootecnico**, 8.

Gatti S., Pecci F., Varini P., (1994) **Il ruolo dei processi innovativi nella riorganizzazione delle principali imprese di macellazione della carne bovina in Italia**. Paper presentato al 4° Convegno Internazionale “Economia e politica dell’innovazione. Il caso dell’industria alimentare”.

Gatti S., Valli C., (1995) La gestione della qualità nella filiera delle carni bovine in Italia. **Rivista di politica agraria**. 5.

Gonano S., Mambriani D., (1996) **Evoluzione strutturale dell’industria comunitaria della carne quale risposta strategica ai mutamenti ambientali**. Relazione provvisoria al Convegno Sidea.

Gonano S., Morandi L., (1995) Carni bovine , **Strategie e competitività nel sistema agro-alimentare. Il caso italiano.** Franco Angeli, Milano.

Inea, (1993) **Annuario dell’agricoltura italiana,** vol. XLVI, dicembre

Ismea (1995) **Filiera carne**. Roma.

Ismea, (1994) **Filiera carne**. Roma.

Istat, (1993) **I consumi delle famiglie.**

Istat, (1995) **Annuario statistico italiano.**

Lanciotti C., Bettoni G. (1995) Carni suine fresche, **Strategie e competitività nel sistema agro-alimentare. Il caso italiano**. Franco Angeli, Milano.

Quarleri G., (1993) Carne bovina: il mercato detta nuove regole. **Largo Consumo**, 3.

Quarleri G., (1994) Avicunicoli, lenta ma costante innovazione. **Largo Consumo**, 1.

Quarleri G., (1994) La mancata innovazione penalizza la carne bovina. **Largo Consumo**, 2.

Spada G., (1997) Anche la carne bovina avrà un’etichetta. **Terra e vita**, 15.

Torelli F., (1995) Il servizio rilancia le carni avicole. **Largo Consumo**, 10.

Troiani C., (1996) Carni, una lenta innovazione. **Largo Consumo**, 3.

Valpreda M., Barbarino G., (1997) Controllo del farmaco veterinario: un perenne fallimento. **L’Informatore agrario**, 13.

Zucchi, (1990) **Il sistema produttivo delle carni e dei prodotti carnei**. Accademia Nazionale di Agricoltura, Bologna.