

Theory and Practice of Multi-Product Farms: Farm Butcheries in Umbria

Flaminia Ventura and Pierluigi Milone

The debate on multifunctionality in agriculture is inspired and informed by two sets of interests. First, the demands of European post-industrial society expressed as the need to restore sustainability in agriculture, guarantee food safety, and counter the inefficiencies of public interventions. Second, the growing need of many farmers to break with the 'industrialization' of labour processes entailed in the model of agricultural modernisation¹.

In many parts of Europe, industrialized farming systems can no longer be considered competitive when compared with those in the Third World, North America and/or Australia. This is partly for structural and institutional reasons and partly because of local territorial and ecological conditions. As a result, within European agriculture, it is possible to identify a search for and the construction of a new, general model for the development of rural areas.

The main actors involved in this search and (re-)construction are farmers trying to renew their farms and find new roles in society so they can ensure their livelihoods secure their capital and maintain their entrepreneurial skills. In this multifaceted process the heterogeneity of entrepreneurial strategies and farming styles (van der Ploeg 1994) is particularly pronounced as new contexts are constructed for agricultural activities. In fact, rural development materializes in new approaches to and methods for resource-use, in new types of innovativeness and knowledge-production. It also implies the construction of new social and market relations between farms and those actors who intervene in or are linked to the development of rural areas (Iacoconi 1994). Multi-product farm-enterprises make up a rapidly expanding and promising segment of Italian agriculture and are a concrete expression of these new trends.

In this article we will discuss the theoretical dimensions needed to understand the phenomenon of the (re-) emerging multi-product farm. We will then illustrate our argument with reference to one type of multi-product farm: the farm butchery in Umbria, Central Italy, a recent development that is now spreading throughout the area. We will give special emphasis to the socio-economic impact of this phenomena at farm-enterprise level and go on to show that the chance of augmenting added value at enterprise level is one of the driving forces behind this development.

Farm resources and institutional context

The way exchanges are structured and governed and the subjects of these exchanges can be understood as social constructions in which two elements play a decisive role. First, the resources² available on the farm or in the territory – including hidden and unused resources. Second, the socio-economic and institutional context in which the farmer may encounter new interlocutors and allies in an interactive process of synergy-creation (Brunori and Rossi 2000). Rural development, therefore, is characterized by a strong dynamism in the use of farm resources as well as in its institutional context.

Rural development implies a continuous re-contextualization. One expression is the current re-elaboration of norms and institutions that has followed several recent external interventions. Many entrepreneurs feel the need to redevelop their strategies in a situation of growing uncertainty in which the main point of reference increasingly becomes the farmers own expectations based on his or her experience and the information available. For many farm enterprises this leads to experimentation and the introduction of innovations in an attempt to preserve the vitality of the enterprise – even if it means a continual redefinition of its borders (Fiocca 1987). The presence and nature of material and immaterial goods, deriving from choices made in the past, strongly influence the strategic choices that have to be made and might imply a further differentiation or a true diversification of production.³ Both will lead to a reorganization of the farm through processes of integration or the externalization of the various functions by repositioning the farm in the cycle of organizational innovation⁴ (Saccomandi 1998).

Direct selling of beef is a good example of such an organizational innovation. More specifically it represents vertical integration and is aimed at the defense (or revalorization) of investments made previously or the maintenance of cattle breeding on the farm. Our study deals with the direct selling of beef in ways that are recognized and authorized by local health authorities. The study refers particularly to the production and sale of beef by the farmer from his or her butcher shop, which may be located either on the farm or in a nearby village.

Developments in cattle breeding and food distribution

The production of beef in the Umbria region can be traced back to the old share-cropping system in which the local *Chianina* breed was mainly used for traction. Today, the breed has proved to be a new and superior source of meat with a good capacity for the transformation and valorization of fodder. This latter aspect is especially relevant in the hilly areas of the region where the production of fodder in rotation with cereals⁵ constitutes one of the few possible patterns of land use.

Until recently cattle breeding was carried out on three types of farm. Small- to medium – sized farms with about one hundred head of cattle and large, specialized feedlots. During the last ten years these feedlots have almost entirely disappeared from the region and as a result there has been a considerable reduction in numbers of fattening and suckling cows. Umbrian feedlots were unable to compete with the lower prices of beef produced in Northern Italy. An ageing farming population and a growing number of part-time farmers also contributed to the decline of the large farm.

Small and medium farms, on the other hand, have turned out to be more stable. As far as the very small farm is concerned, this is because of the continued importance of production for home-consumption. In the case of the medium farm, one of the main factors is that the farm is central to a whole range of activities undertaken by the farming family. Also the entrepreneur's strategy of safeguarding investments (in farm structures and in the cattle selected throughout the years) plays a decisive role. This latter aspect is especially important in the case of the *Chianina* cattle because they are high value animals. Farmers moved into the direct selling of *Chianina* beef as a response to the progressive and rapid reduction in small-sized family-run activities.

A similar process has been taking place in the retail sector. The food distribution sector, initially based on many small and highly decentralized retail units, is now characterized sales points characterized by large surfaces and highly centralized distribution channels. Compared to many other European countries, Italy has a relatively strong traditional distribution system. This is partly because of the regulations in force and partly to the confidence Italian consumers have in family shopkeepers especially as far as fresh foods such as meat, fish and vegetables are concerned. Even though there has been an increase in the number of super- and hypermarkets in Italy, only 30% of fruit and vegetable products are sold in this way. The percentage for sales of fresh meat is, at 20%, lower still.

Currently Italy is experiencing a far-reaching liberalization. Among other things licenses for commercial activities have been recently abolished in accordance with EU regulations. Consequently, municipal programming and control of the number and location of sales points has been eliminated and the last barrier to modernization in the distribution sector has therefore fallen. This means that the way is open for the establishment of increasing numbers of super- and hypermarket complexes and these will compete with traditional shops. Shops located in the centre of towns are disappearing the fastest and as they disappear not only does part of the characteristic atmosphere of the mediaeval Umbrian town disappear, but also towns' people are left with many disadvantages. Where there are typical local products and a tourist population, traditional shops become 'local *delicatessen*' offering high quality products at high prices.

Regional and local administrations have approached the problem of the decline in the numbers of farms and traditional shops in a variety of ways. These range from direct support for these activities to the promotion of special agreements between farmers and local shops. However, it is only in the wine sector that such agreements – supported by the Umbrian Leader programme – seem to produce good results. The majority of consumers have no difficulty in judging the quality of wine but beef and vegetables present greater problems. Single events like fairs or traditional religious celebrations have proven to be good ways of promoting local products to consumers outside the area, although it does mean that sales are concentrated in short periods and produce is not sold through permanent shops.

Farm butcheries and economies of scope

Farm butchers shops are generally established on the farmers' own initiative. They represent an example of what is called '*resistenza contadina*.' They are unique expres-

sions of strategies that oppose the global-type of driving forces we illustrated earlier. Through this actively constructed response, farm resources are combined and used in new ways that result in increased production. New products and services are positioned in the market, whilst others acquire a new (economic) value within the farm.⁶ The multifunctionality of agricultural activity is enlarged, whilst new exchange structures (often with a typical territorial nature) are developed. This transformation is economically efficient if the farm enterprise develops economies of scope. That is, if the level of competitiveness is increased through a reduction in the cost of activities carried out simultaneously within the farm enterprise.

According to Panzar and Willig (1982), economies of scope explain the existence of multi-product enterprises. We refer to economies of scope – also known as variety or range economies when for two given products, for example, Q_1 , and Q_2 , the cost of their joint production is lower than the production cost of each single product. This implies the following equation in a multi-product farm:

$$C(Q_1, Q_2) < C(Q_1, 0) + C(0, Q_2) \text{ for } Q_1 > 0 \text{ and } Q_2 > 0$$

Economies of scope are generated when two or more products with a fixed interrelationship are obtained from a particular production process. Economies of scope also emerge when (part of) the investments and inputs are indivisible and/or when a product is perceived as a public asset or positive externality. Hence, within the agricultural sector economies of scope are the rule not the exception.

According to Teece (1981), economies of scope provide an explanation for the joint production of several products. However, they do not show why production is organized as a multi-product firm. Theoretically, joint production could be implemented in different firms that are inter-linked through contractual mechanisms. According to neo-classical theory, firms are subjects that maximize profit with regard to production costs as well as to transaction costs. In a competitive market, the latter are assumed to tend to equal zero. Therefore, neo-classical theory, even if consistent with the occurrence of joint production, is unable to explain the presence of multi-product firms. In fact, in the absence of transaction costs, a resource surplus within a firm could be reallocated to the market with the same efficiency as when it was used within the firm.

The occurrence of transaction costs explains economies of scope: surplus resources are used more efficiently within the farm enterprise itself than in the market. The specificity of exceeding resources can be seen here as a critical point. Specificity tends to raise transaction costs (Williamson 1985), the more so since the ownership of specific resources is related to the entitlement to control over the firm.

As far as rural development activities are concerned, the fact that the farm enterprise is more efficient than the market might be explained by the high specificity of the resources and the products involved (Van der Ploeg et al. 2000). This specificity often derives from the connections that are (re-)created between the farm and its territory understood as an integrated set of environmental components that include natural and human resources, and culture. Since specificity would imply high costs of market use both in relation to commercialization and, for example, to such aspects as assistance after sales, the inter-linked functions are normally internalized into the farm.

This is exactly what occurs when beef is sold directly. Transaction costs are reduced sharply, whilst simultaneous increases in co-ordination costs following this internalization are reduced to a minimum through economies of scope generated within the farm and territory. This is especially the case when local actors are actively structuring relationships and knowledge that will lead to positive externalities being created for the farm. Finally, the presence of local labour markets, where personal trust and reputation are central features, reduce the costs of supervision of labour within the farm.

The four different types of economies of scope described by Teece (1981) can be found in agriculture. Three of them are based on the presence of indivisible resources within the farm. The fourth is based on the presence of unpriced resources within the territory – defined by Marshall as positive externalities:

1. Indivisible but non-specialized physical capitals as a common input for two or more products.
2. Indivisible, specialized physical capital as a common input for two or more products.
3. Human capital as a common input for two or more products.
4. External economies.

The last two forms of economies of scope have a major impact on rural development processes. In agriculture, a large part of the applied knowledge is tacit in form. The transfer of tacit knowledge from one farm to another is not always easy and far from cheap. Within a multi-product farm, however, the transfer of tacit knowledge is far easier and this is even more so since, in agriculture, knowledge is 'locality and farm specific' and mainly the result of learning by doing. Hence, specialization should not only be defined and understood at the level of products. It is primarily what we might call 'generalisable capabilities.' The multi-product farm can therefore be considered to have a variety of possible final products, all based on one set of generalisable capabilities and organizational technologies. Some of these products may be known to the farmer others may not. What needs to be explained is the particular configuration of end products that the farming family decides to produce.

External economies in the production of goods and services are quite common. There are locality- bounded externalities, implying that the presence of one activity could stimulate other activities (see Brunori and Rossi 2000). In rural development these externalities translate into synergy between different sectors and enterprises. They increase the competitiveness of local firms by adding value to their product through, for example, the interlinked qualification of the environment and the landscape. There are positive externalities if the fact of realizing one activity reduces the cost of another. If these externalities can be captured at low cost by common ownership, then the multi-product organization emerges as a promising opportunity.

There are, of course, limits to the economies that can be captured through diversification. If diversification is based on economies of scope, problems of congestion might arise with the availability of common inputs. For instance, if the common input is land, problems related to the maintenance of soil fertility – which is usually obtained through rotation – could arise. The same applies for labour, since the human factor is of critical importance in diversification. As the demand for sharing know-how increases, problems at this point may arise. The capabilities required might go beyond the human resources available. This is especially the case in agriculture, since most European farms are small or medium size family farms.

Table 1: Profit and labour needs for farm activities related to farm butcheries (Euros)

Product sold	Cattle breeding		Direct selling	
	Heads of cattle	Fresh meat only	Fresh meat and delicatessen	
Average number of bulls	60	60	60	
Average number of pig sold as fresh meat		50	40	
Average number of pig sold as delicatessen			50	
Total beef revenue	101,742	134,279	134,279	
EU subsidy for bulls	5,400	5,400	5,400	
Total pork revenue		20,658	44,932	
<i>Total revenue</i>	107,142	160,337	184,611	
<i>Costs for fattening</i>				
Fattened Bulls	96,222	96,222	96,222	
Fattened Pigs		4,997	11,381	
<i>Total fattening costs</i>	96,222	101,219	107,603	
<i>Costs for the on-farm butchery</i>				
Direct costs		8,264	10,536	
General costs		6,322	6,322	
Processing costs			310	
Amortisation		7,747	7,747	
<i>Total butchery costs</i>		22,332	24,914	
<i>Total costs</i>	96,222	123,551	132,517	
Net added value	10,920	36,786	52,093	
Estimated labour cost for fattening*	11,827	13,195	14,138	
Estimated labour cost for butchery**		23,780	26,029	
<i>Total Labour costs</i>	11,827	36,975	40,167	
<i>Profit/loss</i>	-906	-189	11,925	
Labour need estimation (hours/year)				
For fattening and sale cattle	2,290	2,555	2,738	
For the on-farm butcher's activity		2,558	2,800	
Slaughtering control		156	156	
Carcasses arrival		50	52	
Butchery tasks		2,196	2,236	
Delicatessen production			200	
Administrative task		156	156	
<i>Total</i>	2,290	5,113	5,538	

Data source: Our estimation from direct interviews and INEA for fattening costs

* Calculated as an average wage in agriculture (5.16 Euro per hour)

** Calculated as an average wage in retailing sector (9.3 Euro per hour)

The four modalities of economies of scope discussed by Teece (1981) all refer to the input-side of the farm enterprise. However, it is also possible to have incentives for diversification arising from the marketing strategy adopted by the farm, that is on the output-side. This depends on the use of the product or on the purchasing habits of consumers. This is the case with joint production: the purchase of product A depends on the availability of product B. It may happen that the production of product B is not economically viable, when costs are greater than the benefits. In spite of this, if the demand for A is conditioned by the supply of B, joint production of the two products may occur. An example is the diversification of farm production that occurs when pig breeding is combined with cattle breeding to meet customer demand for a broader meat supply that can be bought directly from the producer. Legislation that specifies the provenance of animals in direct selling on the farm might have the same effect.

Effects on farm enterprises and the region

The direct selling of meat through an on-farm butcher shop is an interesting example of rural development. It is a response to the price-squeeze on agriculture, implies a reconfiguration of resources, and reconnects agriculture with a changing societal context. The response might be interpreted in economic terms with the use of transaction cost analysis describing the process of vertical integration. The resulting organizational set-up turns out to be more efficient due to economies of scope linked to human resources, the presence of specific resources – such as the local *Chianina* breed – and positive externalities resulting from the regional context such as culinary traditions, consumer preferences and trust, for example. The farm enterprise enjoys several advantages when it has an on-farm butchery.

1. There is an important increase in the added value and therefore in the total farm income which offers a good alternative to the diminishing institutional CAP price support. Prices are more stable in the retail than the wholesale market (see Table 1).
2. There is an increase in cash flow on the farm and a better financial equilibrium because there is a continuous and stable cash flow throughout the year.
3. There is an increase in labour needs resulting in new opportunities for family members, especially young people and women. In an average farm butchery this amounts to 1.8 full-time labour equivalents (see Table 1).
4. Levels of labour income derived from the new activities are comparable to salaries earned in jobs requiring similar competence in other sectors;
5. It becomes possible to maintain traditional breeds and use traditional breeding techniques involving, for example, the use of farm fodder.

Table 2: Average beef prices for different distribution channels (Euros/kg)

	Conventional Butchery	Supermarket	Farm butchers
Beefsteak	11.36	10.28	10.27
I cut	9.81	9.76	9.30
II cut		6.20	5.70
Packet (mixed pieces)	n.p	n.p	7.50

Data source: direct enquiry in sample of butcheries in Umbria.

The local rural community also benefits from the presence of farm butcheries:

1. High quality meat becomes available at prices that compare well with those in the supermarkets (see Table 2);
2. There is a redistribution of income at the local level as farmers use local slaughterhouses and transport, for example.
3. Cattle breeding and local breeds are maintained. From an environmental point of view this is more sustainable than the emergence of intensive feedlots. The landscape can be management through fodder production.

Recent development of farm butcheries

The direct sale of agricultural products is no novelty in the sector. In the past, fresh agricultural products such as fruits and vegetables and products processed on the farm such as cheese and ham were sold by farmers in village and town markets. In Italy the direct commercialization of farm products has been regulated by law since 1963. This law makes it possible for the farmer to sell his or her own products in a fixed or mobile location without a commercial license. Such direct sales only need to be authorized by the municipality in which the farm or sales points are located. The premises as well as the equipment used must comply with hygienic and sanitary norms.

It was not until the early 1990s that this possibility was exploited by the Umbrian beef cattle sector. The organization of the production and commercialization of beef cattle was mainly located in 'short' circuits that involved the farmer and the local butcher. These circuits were based on long-term agreements and because of the mutual trust that existed between farmers and butchers transaction costs were low (Ventura and Van der Meulen 1994 and 1995). The same circuits often involved local commercial intermediaries, supplying logistic services. Their target was to place excess production outside of the local market system.

In these local circuits, the transactions between farmer and butcher – also in the presence of an intermediary – and between butcher and consumer were characterized by converging definitions of quality. These quality specifications are, in fact, defined by local traditions and rooted in the presence of local breeds and meat processing techniques. Organizational efficiency is high partly because a satisfactory distribution of the total value has been achieved between the different actors involved. In short circuits none of the actors involved can dominate the other or unilaterally modify the other parties' technological and organizational assets. In fact, one of the specific resources linked to the 'success' of the contractors, whether it is the farmer or the butcher, is represented by what is most commonly defined as *professionalism* (Collins 1994). Professionalism is born from routine processes that allows the individual to become an expert in his or her field. The recurrence of contacts between actors within the local circuit and their interactive character guarantees that there is no information asymmetry between the actors in the circuit. This excludes opportunistic behaviour and allows for a redistribution of the value created within the circuit that all partners consider satisfactory.

The relational structure of the circuit, the dominance of family farms and the labour intensive character of rearing and retailing activities, have allowed the circuit to reply with a certain flexibility to exogenous developments like the price-squeeze

and events such as the BSE crisis. The consequences of external developments are shared between actors according to reciprocal rules, as is typically the case in rural communities. When the BSE crisis occurred in 1997, the reduction of beef prices was divided among all the actors involved in the short circuits. Even the consumers played a role by paying higher prices for local meat than for that sold in other circuits. Hence, the average price of meat fell by about 10% within short circuits, whilst the general price in the leading Italian market of Modena fell by 30%.

The efficiency of the local circuit or socio-technical network was, amongst other things, anchored in the presence of municipal slaughterhouses. This helped control slaughter and transport costs. It also meant that consumers were able to have direct control over the (local) origin of the meat they bought. In the 1980's, this balance was disturbed by exogenous tendencies that affected the local circuits and had a number of serious consequences:

1. A general reduction in beef consumption and in beef prices;
2. A reduction in the price paid for live cattle on European markets and consequently on the Italian market making imported heifers increasingly competitive;
3. The cost of fodder and protein feed required for rearing increased;
4. Costs related to the adoption of sanitary and environmental measures increased;
5. A large number of local slaughter-houses were closed down because of high management costs as well as the high restructuring costs entailed in meeting European regulations;
6. Modern distribution systems penetrated the area and had a downward effect on prices.

Farmers' responded to these external events in different ways. Generally speaking their adaptation to the situation can be defined as either co-operative or autonomous (Williamson 1996). In both cases, however, farmers' tried to protect production factors within their control, such as investments made in structures, know-how and networks. Through co-operative actions farmers tried to reproduce the existing system, whether as a structure (actors) or as an organization (contractual relations). This was achieved with specific common investments and with the formalization of relations. The *Bovinmarche* experience is a good example of such as response (Milone 2000).⁷

Meanwhile, many medium and large breeding farms with between 50 and 200 heads of fattened stock per year, opted for a very different solution: the internalization of all retail functions. In the past these farms used to sell their animals to more than one butcher shop and to intermediaries. A butcher shop in a rural area sells approximately two head of cattle per week and buys from between two to four different farmers. This is due to the pursuit of 'portfolio' strategies and to the fact that it is difficult for one single farmer to guarantee continuity of supplies. The accelerated disappearance of local butcher shops could hardly be compensated by traders operating at national level. Faced with an increased uncertainty in prices and prospects on reference markets, these traders did not – or could not – valorize the animals. When entering in national trade circuits, the medium and large *Chianina* breeders would have had to face an increase in transaction costs, and simultaneously a decrease in the price of their product. For this reason many of them began to explore the possibility of a farm butchery, that is integrating the transformation

of cattle into meat and its subsequent commercialization into the farm enterprise. The autonomous response is, therefore, characterized by the suspension of existing relations with butchers and traders and the search for and establishment of new trading relations. The new context was chosen by the farmers after an evaluation of sales prices and the costs of technological and organizational restructuring. These included the costs of their own production processes as well as costs related to new transaction patterns.

Since the beginning of the 1990s, the number of farm butcher shops in Umbria has continued to increase. Presently there are 42 farm butcheries operating in the region and these sell nearly 6% of the total number of cattle marketed (see Table 3).

Table 3: *Importance of direct beef selling in Umbria*

	Number of young bovine present	Number of young bovine slaughtered	Family consumption of beef (tons)
Farm butcheries	2,520	2,520	737
Umbria Region	50,000*	44,478°	17,000°°
% farm butcheries/ region	5.0	5.6	4.3

*Our estimation from ISTAT year 1996; ° in 1995; °° 1997

In-depth interviews with farmers revealed that their main motivation for opening a butcher shop were:

1. uncertainty in placing the product;
2. little bargaining power in contracts;
3. high transaction costs for the search for new markets;
4. little chance of being able to adapt to 'global market demands' that were very different from local demands as far as cattle were concerned;
5. relatively low costs linked to investments in structures;
6. High selling costs *ex post*, i.e. costs involved in securing contractual terms including price, collection date, and terms of payment, for example.

None of the farmers interviewed considered closing down their breeding activities. This was not only the case on specialized farms, but also on farms where breeding activities were combined with commodity-production for (international) bulk markets.

On all farms cattle raising plays an important role. It does not only have a positive impact on the generation of income, but also on the utilization of endogenous farm resources such as family labour and the reproduction of soil fertility. This last aspect is even more evident in mixed farms where cattle raising provides the manure for the production of fodder crops and vegetables. The new pattern of on-farm transformation and direct selling has also introduced new risks. As one farmer explained: "In the beginning we used to sell to one or two butchers, now we need at least one hundred customers, and it is very difficult to attract a customer but very easy to lose one."

The on-farm impact of direct beef selling

Direct sales constitute an example of vertical integration, in this case through the internalization of all market functions in one single farm enterprise. According to marginalist theory, integration occurs in the presence of cost or market advantages.

Cost advantages emerge if integration allows for economies of scale. Market advantages are those connected to the achievement of a monopolistic position. Within neo-institutional theory cost advantages are conceptualized differently. A new phase is integrated when the total costs of production and co-ordination for the farm are lower than the purchase price of the product including costs of market-use (Williamson 1985). When this condition is fulfilled, vertical integration – as represented by the farm butcheries – constitutes the most efficient organization.

According to Grossman and Hart (1986) vertical integration can also occur as a second best, non-efficient option, a kind of protection of highly specific firm investments. In the case of direct selling, integration is initially carried out to defend previous investments such as breeding (selection of animals, stables etc.), the organization of the farm (work division and cultivation schemes) and the contextualized knowledge acquired throughout the years. Even in this case, direct selling as a new activity means there will be an over-all change in the farm enterprise as a whole. New networks with end users, veterinarians, and butchers will be established, new products – generally fresh and processed pork meat – are introduced, and even ‘traditional’ cattle breeding will be transformed in order to meet the new demands of the (new) customers. Hence, possible inefficiency linked with costs that are difficult to change is progressively reduced. This occurs through the introduction of economies of scope linked with the new context (including the new market and the new customers) and with the presence of human resources that are difficult to find on the labour market.

With the opening of a farm butchery, the farm profits are augmented with the profits of the butcher shop. The costs of the latter are divided over the different commercialized products, such as pork and lamb which were traditionally only produced for family consumption. Furthermore, the butcher shop allows an optimal alloca-

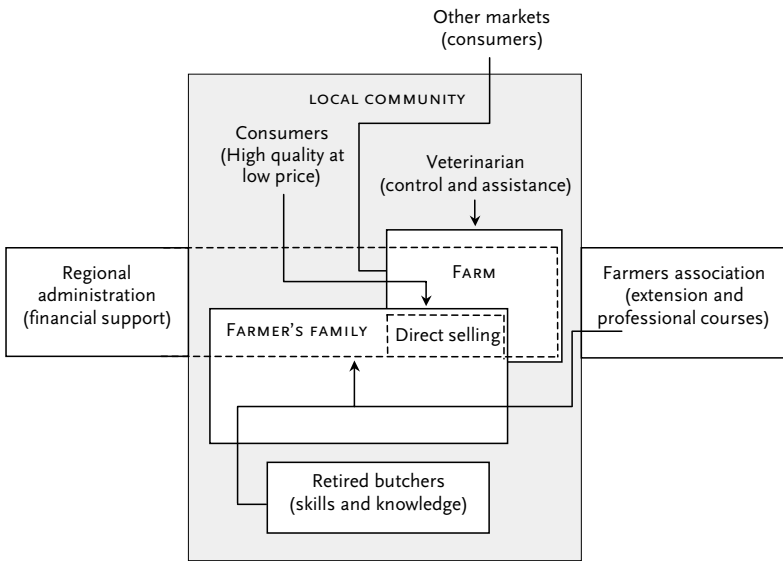


Figure 1: Relevant actors for the emergence of farm butcheries

tion of available family labour: pig meat and its processed products such as hams and salami are mainly produced during winter when there is less work on the land.

The organizational costs of the new activity are limited, since the person responsible for it is always a family member. In this way 'congestion problems' are also avoided. Even when the farm uses a (retired) professional butcher there is no chance of opportunistic behaviour, since the continuity of income and work depends directly on the success of the farm entrepreneur. Transaction costs linked to the acquisition of specialized human resources (a butcher) or the knowledge needed for running the butcher shop are very low. The presence of a strong local tradition in production, slaughtering and meat consumption creates positive externalities at this point. The fact that other actors are very familiar with the activity (see Figure 1) is decisive in this respect.

The wider impact of farm butcheries

The relevance of on-farm butcher shops to the region lies in their capacity to maintain local breeds and associated endogenous farming practices in a context of highly adverse trends and events. Major problems recently have been the BSE crisis, hormone scandals and the introduction of genetically modified organisms in cattle feed and fodder. This relevance becomes even clearer in view of the high costs associated with direct income support to maintain farm household incomes in the region.

The impact of farm butcheries is not limited to their current geographical distribution neither is it curtailed by their (still) small numbers. It should be noted that consumers come from as far away as Rome to visit the shops. A currently emerging trend regards the expansion of the networks towards other *Chianina* producing farms, notably those that do not have the dimension required for initiating direct selling themselves. The potential threat of congestion in the farm butcheries is thus offset by an increased supply of cattle from other (mostly small) farms. It simultaneously improves (through the new network) their prospect of self-sufficiency.

More broadly speaking, the emergence of a network of farm-butcheries linked with other farms increases the flexibility of the whole system as far as quick changes in markets are concerned. It also reinforces the general trend towards production and quality that is more linked to the territory. Simultaneously, synergies are cre-

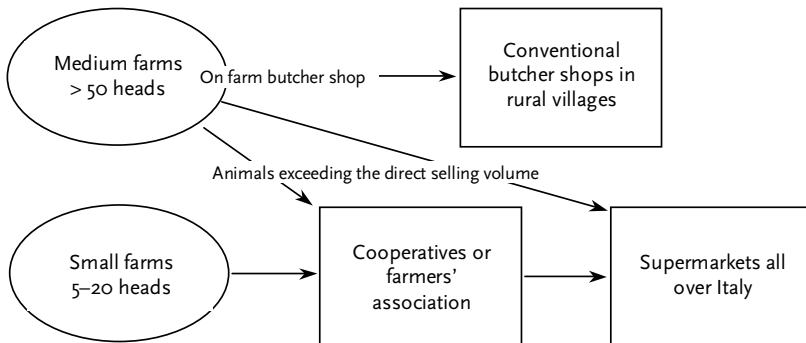


Figure 2: Potential Development of *Chianina* cattle breeding in Umbria

ated between food production on the one hand and the delivery of services such as those related to landscape maintenance, quality of life, culture and local traditions on the other. The present development of cattle raising in Umbria has strengthened the rediscovery of the *Chianina* breed. There is an increasing demand for this meat even in the high value markets served by the modern distribution systems.

The most probable development trajectory in the present situation would seem to be the further strengthening of local circuits. This may occur through the transformation of farm butcher shops into true rural shops. Another promising course of action may be organizing the marketing of meat from small *Chianina* producers through large distribution channels.

Notes

1. The term 'industrialization' of agriculture is used here as an antithesis of craftsmanship as understood by Rullani (1992). Artisan work includes the production of knowledge required for the production process mainly by the actors themselves. The assumption is the need for a contextualized knowledge. In agriculture this is produced by production 'styles' connected with the territory in which they are born and operate. The industrialization process in agriculture, by contrast, follows a progressive standardization of knowledge. This is only possible through a disconnection from the locality (Van der Ploeg 1992).
2. The availability of resources also depends on the capacity of entrepreneurs to 'create' them by means of new methods or to mobilize them in the production process. The case of 'farming economically' presented elsewhere in this issue is a good example of this process in relation soil fertility (Van der Ploeg 2000).
3. Diversification means the introduction of activities that are completely new to the farm and not related to the environment of previous activities (Vicari 1991).
4. According to Burney and Ouchi (1984) firms pursue forms of collaboration that minimize transaction costs. This adaptation process results in the existence of a continuum of organizational forms.
5. More than 90% of the territory of Umbria is hilly and mountainous. Many of these areas are subject to hydro-geological instabilities. Land is mainly used for forage cultivation.
6. An example of the first is nature and landscape conservation which has turned into a remunerate service on newly emerging markets. An example of the second is the substitution of inputs purchased on external markets by on-farm production.
7. *Bovinmarche* is an association of producers in the Marche region located east of Umbria. It uses a trade quality label to guarantee the origin of meat from local farms. More than 1,000 farmers and 165 butcher shops have subscribed to the *Bovinmarche* scheme. The differentiation guaranteed by a brand name has allowed prices for the cattle raised in the Marche region to increase by 15%.

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Flaminia Ventura and Pierluigi Milone
Dipartimento di Scienze Economiche ed Estimative
Facoltà di Agraria
Perugia, Italy