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« Farm-Level Agribusiness Trade and Services in Selected EU Countries »
by Jean Cordier, Professor, Ecole Nationale Supérieure Agronomique, Rennes, France

Introduction

Farm-level agribusiness trade and services in EU is quite a large and very much diversified topic. Depending upon the historical regional context, the type of input or output, farming and related businesses present quite a large diversity of organizations. In addition, a crucial change is launched within the European Union which has not been decided by politicians but by consumers. This change is related to the full integration of the food chain. Consumers are now interested to know more and more on the technical practices of the upper side of the food chain. Agricultural market deregulation and new qualitative demands of the consumers are directly affecting farming and related businesses.

This paper is organized in three parts. The first part presents farming as an input-output system as any firm but with some specificities which influence the nature of the relation with suppliers and clients. The second part is an essay to represent the current most important types of organization of the agribusiness trade and services within the European Union. This part is based upon the search of the explicative parameters of such organizations. Finally, the third part will develop the parameters which should influence the future of such relationships and organizations and therefore have an influence on the future business climate in rural areas and in small rural towns.

I - Farming, a business activity with specificities

Farming is a process of producing outputs, such as grains, oilseeds, sugar beets, fruits and vegetables or livestock and milk using a set of inputs. Traditional farm inputs are arable land, owned or leased, fixed investments such as buildings and long-term equipment including machinery, and direct inputs such as seeds, fertilizers and agro-chemicals. For livestock production, genetics, feed and veterinarian products are specific inputs. In addition to these inputs, labor and capital are traditional firm inputs. With such technical inputs, the farm manager is supposed to organize the various functions of the firm, in particular marketing, production and finance. Outputs and inputs are exchanged through various mechanisms and organizations, as a combination of « markets » and « hierarchies » in relation with various parameters (degree of differentiation, required services, access to the consumer, and others). For instance, grains may be sold on a cash market for immediate or delayed delivery with multiple potential buyers when machinery is bought to a specialized dealer representing a specific brand name.

But farms, especially family farms, do not manage directly all the traditional functions of the firms. For instance, the human resource management is very often minimized as farming is usually run by the owner with a limited number of employees. Labor is not considered as an input bought on the market against wages in family farms, but family labor find a return on the farm
total profit. Then, the quality function is usually not managed as the farmer is doing « his best ». Farming has been considered up to now as a traditional activity with technological improvements through time. No real external audits have been performed on family farm to check for good production practices. There is no quality insurance system developed on farms, and usually farmers tend to react to external constraints such as public regulations or client constraints. In addition to the quality function, the management of environmental conditions has not been practically taken into account for the time being at the farm level. Finally, research and development are completely externalized and basically managed by large firms dealing with genetics and agro-chemicals or national research institutes. Family farms are acquiring technology through various channels but are barely able to capture the associated economical rent which is kept by the technology owner.

In addition, farmers are buying services in order to manage the input-output farming system and improve the major functions of the farm-firm. For instance, farmers are buying accounting services, technical services, advice on labor regulations or social rights. The external expertise may come from private firms who are selling (or not) farm inputs or from farmer organizations, working groups on a pure independent basis or supported by public funds.

The farm manager has the responsibility of selling outputs and buying inputs, organizing the internal black box of the production process in order to fix a positive net margin. The following table gives an synthetic idea of the importance of various farm functions in the past and the prospective importance of those same functions in the future.

<table>
<thead>
<tr>
<th>Farm functions</th>
<th>Historical</th>
<th>Prospective</th>
</tr>
</thead>
<tbody>
<tr>
<td>Marketing</td>
<td>+ / -</td>
<td>++</td>
</tr>
<tr>
<td>Production</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>Finance</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>Human resource</td>
<td>-</td>
<td>+ / -</td>
</tr>
<tr>
<td>Quality - Environment</td>
<td>-</td>
<td>+ +</td>
</tr>
<tr>
<td>Research &amp; Development</td>
<td>+ / -</td>
<td>+</td>
</tr>
</tbody>
</table>

II - Organization of the agri-business trade and services

2.1. Some historical grounds to explain the agri-business trade and services within the EU

Farming is a business activity within the food chain. The primary objective is to provide food and other raw materials to local and distant populations. Therefore, farming is a strategic activity, as it conveys the concept of nation food self-sufficiency. Wars and revolutions have been quite often related with agricultural production, deficits and more generally unbalanced markets. In addition, for some developing countries, agriculture is one of the most important resource for the national budget as agricultural exports account for a large part of the trade balance. For these reasons, agriculture is the source of national policies all around the world. The European Union is well-
known for its Common Agricultural Policy which influenced for more than thirty years the structure and organization of the farming sector as well as its clients and suppliers.

Europe has a long history of nations, kingdoms, empires and republics. This region presents a great diversity of social organizations, cultures and languages. Therefore, European countries present various farm structures as well as different forms of agri-business trade and services related to farming. The farm inputs are bought from suppliers and the outputs sold to clients with different types of contracts and relationships. In order to give a view of such types of organizations and their diversity, I think the only way is to come back to some historical features. In a rude and personal decision, history has been divided in three periods of completely different lengths. The first period starts very early in the past and lasts after World War II. The second period is from the sixties to 1996. And the last period extends from 1996 to now.

Period 1 covers most of the European history. During the period, two extreme positions can be represented with many intermediate situations. Some European countries have been stuck in quite liberal economies involved in international trade. Their fundamental culture brings the idea that the exchanges of goods, services and ideas are the source on national wealth. Therefore, competition on markets is the most useful process even though the weakest market participants disappear at a high rate and that firms are rapidly expanding in size. The leaders of such European group would be the United Kingdom and the Netherlands. Some countries have a much more mercantilist economical approach. For them, wealth of nations is based more on the accumulation of gold and valuable goods. It is important to defend and support the national firms as family jewelry. Exports are then positive but imports develop suspicion of unfair competition. Protective political measures are required to « regulate » market problems. Latin countries and France in particular are leading this group. To bring some complexity to this view, countries had through time different attitudes. For instance, some cities were very much « market oriented », like Venice or Genoa in Italy or the cities of the Hanseatic Guild in Germany.

Period 2 is the first phase of the creation of the European Union through the most important program, the Common Agricultural Policy. This period starts few years after the signature of the Treaty of Rome in 1958 when the major political instruments are implemented for various agricultural productions and ends in between 1992 and 1996. The major instruments are systematic purchasing public intervention for supporting European prices and isolation from international prices to maintain high domestic prices. These high prices were incentives to produce large quantities of agricultural products. As soon as early eighties, it is possible to have an evidence of a structural excess European supply for the most supported products. Therefore, in 1992, the Common Agricultural Policy Reform decreased quantitative incentives to produce and introduced new incentives for qualitative aspects. But the real shock to end this period came from the consumer through the BSE(1) crisis.

Period 3 starts basically in 1996 when consumers are disoriented by the sum of crisis and interrogations, hormones, BSE, antibiotics, GMO ... We know about the beginning of the period where consumers are much concerned by quality and also ethics of production, where consumers

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1 Bovine Spongiform Encephalitis
are wondering on the potential and responsibility of science, and we do not know how long this new period will last. The last episode of the dioxin within feedstuffs in Belgium in June 1999 adds on the question of food safety and consumer confidence in production techniques.

As a consequence of period 1, we explain the large structure of the farm sector in the United Kingdom with the specific role of the landlords in charge of maximizing the value of the agricultural assets or the intensive farm production in the Netherlands based upon high technological grounds. Intensive livestock production based upon imported feedstuffs as well as high value added production in vegetables or flowers compensate for small farms and high land value. In the meantime, these countries developed the most transparent and liquid markets for agricultural products that exist in the European Union. These traditional markets concern futures markets in the United Kingdom and sophisticated auction markets in the Netherlands. A French region, Brittany, made a copy of these last markets for vegetables and hogs, with very positive consequences for the producers and the regional economy. In Latin countries, the cultural features brought a structure of small family farms with a low technology and a great inertia to adapt to the economical and technological environment.

As a consequence of period 2, we would like to emphasize the great success of production development as the fundamental result of price incentives by the mean of technological use as well as various forms of organizations. All the sources of productivity were used: new genetics for improved seeds, larger machinery and more powered tractors, high use of fertilizers and agro-chemicals. The maximum of productivity was the economical optimum for the farmers. The question was also to buy the latest technology and to buy it at the least cost. The question of the demand is not so important at that time, as the political measures guarantee that what above the consumers demand, the excess supply will be taken by the public authority and «exported» on the international market with adequate subsidies. Therefore, one of the characteristics of the period is the dichotomy between the sphere of production and the one of consumption. This situation is illustrated by the following scheme.

The food chain:
The consumer has a traditional demand of good value and convenient food products that is fulfilled by the food and retailing industries. Commodities are bought from the «farm side» at administrated prices. The dynamics of the food chain comes from the confrontation of the arbitrage power of the growing retailing industry and the product power of the food industry based upon innovation and consumer marketing.

Farmers with administrated and rather fixed prices for agricultural products are looking for cost efficient techniques in order to make profit. Margins are very tight for output marketing as the competition is high between private and cooperative organizations. The dynamics of the supply side comes from the input industry which brings technical innovation to farmers, usually through larger scale technology. Therefore, the rent is kept by the input suppliers and good margins are given to distributors.

2.2. Current agribusiness trade organizations

With a determined target price of the agricultural products, the farmers focused on the production process in order to minimize costs. Productivity is the ultimate objective. How the farmers managed to buy their inputs vary with the types of inputs, the market structure of the suppliers and also the «fundamentals» from period 1.

Two extreme situations can be drawn with a range of intermediate which creates a real difficulty to present a synthetic view. The first situation is represented with the large farm able to have a good knowledge of the incoming technology and able to bargain the price of acquisition. In such situation, private suppliers are providing the major farm inputs. A private company works as a wholesaler for agro-chemicals, seeds, feed and else. The private supplier usually tries to present the largest number of inputs in order to maximize the return from the farmer relationship. Some inputs are specific, especially machinery which requires repairing and maintenance work and banking for specific regulations of the financial markets (prudential rules). The private business is based upon a high initial education of farmers, a symmetry of information and therefore some equilibrium of bargaining power between the farmer and its supplier. We observe through time a simultaneous growth of size between the farms and their private suppliers. In addition to the purchase of inputs, the farmers are buying technical and managerial advice from private consulting firms.

The opposite situation is the organization of several farmers in order to reduce the market asymmetry of information and bargaining power. Agricultural history is full of examples of the continuing battle of the farmer against the abuses, either real or imaginary, of the marketing middleman. The farmer has continually complained about having to sell cheap as a producer and buy high as a consumer. Cooperative organization has been proposed by farmers as one possible solution to these problems. Cooperatives are businesses voluntarily owned and controlled by its members-patrons and operated for them on a nonprofit or cost basis.
Cooperative associations are established to perform certain tasks. When classified according to the tasks performed, cooperatives fall into four broad categories, marketing, purchasing, service and processing associations.

Marketing cooperatives were first organized in order to sell farm outputs as commodities. Their role was to collect products from individual farms, grade and store them at competitive costs, then sell them on the markets to traders and industrial users using agents and/or brokers. Most of the grain cooperatives in France started in such a way. The current cost effectiveness of such organization require a regular size increase, which is reaching now a million tons of grain per grain cooperative. When the agricultural product is unstable such as milk or when the product requires some initial processing such as slaughtering for livestock or packaging for eggs, fruits and vegetables, the cooperative of farmers enters usually into the first processing level. Large dairy and slaughtering-cutting-processing cooperatives exist in most European countries which compete with private businesses.

Very often and simultaneously, these groups of producers try to rationalize the purchasing of inputs such as seeds, agro-chemicals or veterinarian products. Through local producers organizations or even national cooperative organizations (UNCAA in France), farmers are looking for lower input prices and related technical services. Cooperatives are again competing with private business for distributing the production inputs. As explained above, margins and return on investments are much greater on technical inputs than on outputs, but these activities are linked and the same commercial person can deal with crop purchases and input sales, therefore large private and cooperative organizations are dealing with both activities.

Finally, producers are also organized for improving their technical and financial management. The technique is to develop groups of reference. On an anonymous basis, a group of thirty to forty farmers brings all their financial and technical data. In working together and with the help of specialists, farmers are able to analyze how the best farms are managed and how the less efficient farms should improve their techniques. These systems exist in most of the countries within the European Union.

But all these current organizations have been developed within the particular context of the “great” European Agricultural Policy. The food chain value creation is in two parts which are not much working together, the demand side with innovation through food products and new distribution techniques and the supply side with technical inputs innovations for a better farm productivity (grains and livestock). From the farmer point of view, the problem is not to sell but to decrease production costs with the adequate technique and inputs.

Within this scheme, a minority of farmers in all EU countries are not pleased with the increasing distance with the consumers. They feel there is a market segment for agricultural products coming from much more traditional techniques, without use of processed fertilizers, pesticides and other chemical products. These products are called «bio» as they catch the attributes of nature and tradition. In period 2, these products and their producers are marginal. The farmers develop direct links with consumers as the food industry and associated retailing industry are not willing to fulfill this small segment of consumption demand. Short marketing channels are organized through direct sales from the farms or sales through the traditional small shops.
III - Perspectives for the agri-business trade

3.1. A new food chain environment

Since the mid nineties, several fundamental factors are affecting the agrifood sector. Three of them are of major importance, (i) a consumer demand for new qualitative aspects such as food safety and (ii) technology developments, and particularly biotechnology, which bring progress and economic potential development but also raise some objective and subjective risks, and finally and maybe as a consequence (iii) an agricultural market deregulation which affects the global supply side of the food chain, in particular the farmers.

The traditional qualitative characteristics of the food consumer demand are related to organoleptic taste, adequate value with respect to different consuming situations, convenient qualities in terms of purchasing activities, transportation, storage and cooking. The food industry has been working on these characteristics for decades (Periods 1 and 2), alone first then in relation with the retailing industry which took quite a large part of the rent created by such work. Since the beginning of Period 3, new characteristics appeared and developed, they are related to food safety and ethics with respect to the environment and animal welfare. In Europe, the bovine spongiform encephalitis crisis in March 1996 was a shock for the beef sector but indirectly for the total food sector. The consumer was eager to know the origin of the products and also the different steps of agricultural as well as food processing. The implication of such new demand characteristics is great as the traditional food-retailing industries are unable to respond alone to the consumer demand. The very first part of the food chain is now considered as a very important part of the food safety chain, farm suppliers input distributors, farms and first processing industry. Furthermore, the demand for durable agriculture and animal welfare is directly related to farming activities. The gravity center of responsibility of the food chain has then changed.

Technology developments are first related to biology. Genetically Modified Organisms are now part of our environment, even though European and North American countries have not the same point of view on benefits and costs (or risks) of such products. But this current mediatic issue is just hiding quite a lot of products related to farm production which all brings economical benefit somewhere in the food chain, usually in reducing production costs. In fact, production techniques are more widely open and choices have to be taken positively, not only by individual farmers but by the complete supply side of the food chain. The second technology of interest is related to transportation. Transportation services are now worldwide, not only for bulk but for individual parcel, with new services such as fast delivery or cold chain and finally at decreasing costs. New transportation techniques allow one region, one food industry to sell not only commodities in bulk but intermediate food products around the world, which is a chance for any region but also a challenge as its own production can be replaced by imports. Finally, the communication technology is crucial for the food chain, as it allows new possibility of trade between regions at all level, for commodities of course, but also for intermediate food products and local consumer products. Electronic trading is a way to present regional products to the world consumer ... Taking advantage of such technological aspects, firms are more and more internationalized. Some are relying on trade, import and export, some are developing a real international network of subsidiaries and financial alliances. The food industry first but now the
retailing industry are running for internationalization, searching for market shares in large economical regions such as Europe, North America, South America or Asia. The concentration of the downside of the food chain is a challenge for the upper (supply) side.

Agricultural market deregulation finally affects all the regions around the world. Most of the countries around the world are small countries and local agricultural policies affecting national markets through quantities or prices are less and less sustainable. The technology developments in parallel with internationalization of food-retailing firms are globalizing markets. As a consequence, we found that « new » agricultural policies around the world are looking for economical efficiency at the farm level and support the creation of « public goods », in particular the environment. Finally, agricultural policies are more and more taking into account the consumer and citizen demands. To be short, the dichotomy of the supply and demand sides of the chain, as a characteristic of Period 2, is dismantled in the new period. Period 3 represents the union of the food chain where the consumer demand will lead completely the work of the complete chain.

3.2. Implications for the farming and agribusiness trade in Europe

The challenge of a regional food chain in Period 3 is to develop the value creation, not only in minimizing costs (which still is necessary) but in developing answers to the demand of the international consumer. The local consumer is the considered as the closest international consumer. The general answer to the new food chain environment is an adapted vertical chain management with improved internal rules within each level of the chain and also improved interfaces between them. Each member of the chain brings part of the consumer demand within a vertical coordination. The economic theory has developed concepts on transactions and market participant behavior which are of great interest to build adapted contracts within the chain. When quality is cheap to analyze, products are usually exchanged with minor interface between the seller and the buyer. Depending upon the unit cost, ex-ante information is checked and/or created either by the buyer, the seller or a third independent body. This is the traditional way for commodities including agricultural products, performed in Periods 1 and 2. These products are called search goods (1). When the risk of the buyer is increasing and the cost of quality checking is high, quality may be checked after product delivery, and contracts usually include a warranty system with penalties for lower quality. The warranty will limit the risk of the buyer without being a safety-first criteria. When transactions are done on a regular basis, buyer and seller are developing a kind of « implicit quality information ». These products are called experiment goods. Finally, the models on transaction with limited ex-ante or ex post information, high transaction risk are developed in industrial economics with the concept of credence goods. On such basis, the concept of « seller reputation » becomes crucial.

It is possible to consider that the food product is now shifting from the status of experiment good to the new statue of credence good. The international consumer does not trust anymore the food firm but is looking for food chain quality insurance. He is now asking the retailing industry to select such food chains around the world. This is a complete new approach which affects not only the food firms but also their suppliers, the farm sector and its own supplier of inputs.

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The two direct basic implications of such moves are the need for vertical coordination (including production rights) and the need of new income risk management techniques.

The objective of vertical coordination is to increase the food chain value in bringing all the quality attributes expected by the consumer. In other words, it is a mean to add ethic and food safety value within food products. The consequences are a better rent to be shared between the chain members, therefore a better expected price for farmers and the insurance to sell their products. That is what is sometimes called the «production rights». The techniques of vertical coordination for the upper part of the food chain, farming and related agribusiness trade and services, include the fine analysis of the consumer demand and derived demands from the food industry, the writing of contracts with direct suppliers and clients describing all the product specifications and production method description. And the implementation of quality-environment-ethics insurance schemes for each chain participant. This vertical coordination requires very often an horizontal coordination between firms from the same origin in order to take advantage of volume effects, reduce unit fixed costs and share local specialists. Such specialists may come from firms in other industrial sectors. Finally, we observe the development of a complex set of vertical and horizontal relationships, which brings the idea of a «network company» for representing the upper side of the food chain.

The concept of new income risk management comes from market deregulation for European Union farmers and other market participants. Farmers will produce more and more for definite and specified consumer market segments in terms of quantities and qualities but they will face price risk as well as yield risk, inducing a global income risk. Therefore, there is an increasing need for market-based risk-management instrument for various time horizons, short term which corresponds to crop year for instance, intermediate term, from three to five years, which corresponds to some asset depreciation length and also long term, from five to twenty years, for long term investments. These techniques are based upon the use of derivatives contracts, swaps and long term insurance contracts. The objectives of such contracts are quite similar for the different objective terms, like defining floor income (or price), tunnels with minimum and maximum prices or participation contracts with minimum prices in case bearish markets and gain sharing in case of bullish markets. Current techniques in EU consist in presenting such programs and related costs as a «normal» variable cost of production as the use of pesticides or herbicides. For instance, for wheat production, fertilizers cost can be 7-8 % of the sale per hectare, pesticides 7-8 % and a put option for a minimum safety price about 2-3 %.

Farmers will both participate to vertical coordination for fixing «production rights» but simultaneously will enter into risk management contracts to bring flexibility into their marketing plans.

These new marketing conditions, upward and downward, for farmers described for Period 3, the current period, are already affecting both the farmer suppliers and distributors as well as the commodity traders and first processing industry.

The two main consequences for the agribusiness trade and services are first the need to organize themselves for new marketing techniques and second to help the farmers to better take
into account some functions, such as quality and environment. New marketing and production techniques include:

« Client Profiler »
- Better knowledge of final consumers
- Knowledge of international regulation
- Knowledge of direct and indirect clients (concentration)
  - purchasing center (organization, methods)
  - logistics (adapted to each client)
  - business-to-business marketing (co-production of a system, key account management), as opposed to consumer marketing (test marketing)
  - ability to work with international clients (intercultural relationships, distant working)

« Image Designer »
- Build a rent on the origin characteristics
- Build an image on integrated quality insurance scheme
  (quality charts, quality management, new communication means and techniques)
- Set a mechanism to share the created rent with partners (in particular farmers)

It is possible to elaborate on each title of the list but one very recent example may illustrate most of the concepts. It is the case of a dairy industry in Brittany in France which is dealing with cheese as ingredient for the food industry (pizzas, cold and hot sandwiches, fresh products, etc.). This region is not very much known for « traditional » products and it is well known that butter and milk powder are now commodities with no rent for the dairy industry. Therefore, the strategic idea has been some years ago to invest on increasing consumer segments and deal with specialized cheese products for various types of industrial use. Competition is high between various European firms and the market is at least the Common Market. But in addition, this firm has developed with milk producers and their suppliers strong quality insurance scheme with a complete traceability system for milk and processed products. All the feeding system as well as the veterinarian products are under this scheme, allowing some products and some constraints for their use. This is for pure production technique. Farmers are under a new environmental program which is supposed to limit the pollution problem (nitrates) in the region. During the dioxin crisis in June 1999, the firm has been able to prove that the all producing system, from the feed to the cheese, was under control first to the consumer but also to industrial buyers of intermediate food products. It is possible to believe that trust into the supply side of the food chain is very important for the demand side. It is a strategic problem for agricultural regions, for the local farmers but also the agribusiness trade and services, to be successful in such practices.

3.3. Local consequences for rural areas and small towns

Considering the new food chain environment, it is not possible to define a pre-determined model for the future of agribusiness trade and services, but changes should occur in the near future under well defined constraints. First of all, value creation will quite different from a region to another depending upon their competitive advantage. For instance, a region of low mountain will not be
able to compete in terms of production costs, even with some compensatory amounts paid by agricultural programs. The farmers and the first processing industry should try to develop the «rent of origin». Typical and/or traditional products have to be developed, designed in a new manner, and distributed first through direct channels, from the farm to the consumer, through traditional channels of specialized stores, through specialized shelves of the «modern» distribution or now through innovative channels (electronic sales). Another region with cost advantages will build on international products with high volumes of production. However, these products will be developed within the new context as explained previously.

The model of organization and behavior of the private agribusiness private and cooperative firms in Europe will differ from a region to another depending upon the mechanism of value creation and not the mechanisms of rent distribution between the participants of the food chain supply side. But individual changes may be expected in the various activities of agribusiness trade with respect to the previous analysis which should affect the economical activity of rural areas and small towns. The following table presents which type of agribusiness trade should be affected and how.

<table>
<thead>
<tr>
<th>Agribusiness Trade &amp; Services</th>
<th>Intensity of change</th>
<th>Types of change</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Input Distribution</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Farm machinery</td>
<td>Low</td>
<td>(1)</td>
</tr>
<tr>
<td>Fertilizers, agro-chemicals, seeds</td>
<td>High</td>
<td>(2)</td>
</tr>
<tr>
<td>Banks</td>
<td>Medium</td>
<td>(3)</td>
</tr>
<tr>
<td><strong>Services</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Chamber of Agriculture</td>
<td>High</td>
<td>(4)</td>
</tr>
<tr>
<td>Accounting &amp; Management</td>
<td>Medium</td>
<td>(5)</td>
</tr>
<tr>
<td>New services</td>
<td>High</td>
<td>(6)</td>
</tr>
<tr>
<td><strong>Output Services</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Output private trading and</td>
<td>High</td>
<td>(7)</td>
</tr>
<tr>
<td>commercial cooperatives</td>
<td></td>
<td></td>
</tr>
<tr>
<td>First processing industry</td>
<td>High</td>
<td>(8)</td>
</tr>
</tbody>
</table>

(1) **Farm machinery dealer.** Changes will occur with the increasing size of farms, inducing less and bigger machinery. Technology also will affect such input dealer, like precision farming, with more computers, use of GPS connected with automated farm tools. Another change in western European countries will come with pooling techniques of machinery in order to reduce fixed investments and depreciation costs. Some farmers are reducing drastically their machinery and rent «farm activities» to specialized dealers.

(2) **Fertilizers, agro-chemicals and seeds private business and cooperatives.** Changes will occur in the optimization of the agro-chemical use rather than «maximization». Much more sophisticated
techniques will be used for rational use of fertilizers, pesticides, herbicides and other products. Therefore, products will be sold with more technical services in relation with client charts and contracts. Concentration will affect such organizations for decreasing operating costs and dealing with increasingly sophisticated national and international regulations.

New services may be shared with specialized firms on how to capture the rent for «nature», environment, quality, ethics. Agricultural official programs will brings compensation for durable agriculture and private dealers as well as cooperatives will develop plans for the farmers to catch such types of subsidies. Then, farmers will integrate such values and manage new traditional firm functions.

(3) **Banks and Insurance.** These financial institutions will have to understand all the new risks of the farming activity. They will develop new products to deal with such risks, going from short financing means of marketing contracts (futures contracts, options) to longer term financing of swaps or insurance schemes. Specialized division of banks and insurance will be devoted to such activities.

(4) **Chamber of Agriculture and/or Chamber of Commerce.** These traditional organizations will have to develop new regional services and new services. Regional projects can mature within these institutions, but also quite a lot of problems of transition in agriculture can be discussed. Land market and farm structure may be regulated through *ad hoc* commissions in order to maintain a real land market but also take into consideration long term objectives for the agricultural region.

(5) **Accounting and Management.** Up to now, such services were related to production cost control. Their future is in margin management on short and long term. Their advice will integrate new commercial contracts, new risk management tools, new techniques of optimal farming.

(6) **New services.** What can change for rural areas and small towns is the development of new services, basic services for quality management, but also firm organization, information services (market data but also specialized professional news magazines) and related techniques, tax specialists, and do on. The list of such services could be very long and in various EU countries, such services are practically in development.

(7) **Output private trading and cooperatives.** These firms have a tremendous work for providing markets to farmers. «Production rights» depend on their ability to catch final and intermediate markets. Very often, supplying inputs and selling outputs are within the same business, allowing integrated plans for bringing all the quality attributes required by the market segments. In addition, this type of agribusiness is providing most of the risk management contracts, the necessary market information (current spot and futures prices, balance sheets, trends and expectations), and sometimes the farm marketing plans.

Local horizontal alliances and network with other types of local industries for developing adequate new services or managing new regulative constraints will give local development opportunities. From diversified organizations, such business move to a series of vertically coordinated businesses.
(8) First processing industry. This industry is involved in the same way than the private trading and cooperatives. Sometimes, the first processing industry has been developed from the private or cooperative business. This business is the interface with the food industry, but also indirectly with the retailing industry. All the requirements of the demand side have to be fulfilled, which is a problem of internal methods but also coordination with direct suppliers, traders and cooperatives, as well as farmers. This requires an improved organization between the plants and the suppliers, computerized communication systems and quality controls.

As a conclusion, it is reasonable to consider that farming will be more and more integrated into organized food chain, a chain of firms. The agribusiness trade and services which were targeting very quantitative aspects for farmers are already moving towards more qualitative topics. The main idea is to create positive value for the consumer in addition to productivity and cost minimization. This is finally a much more complex challenge than few years ago. A challenge but also a great opportunity for the sector. Traditional competitive advantages may change with new values of different consumer segments at the international level.

Organizations from the past are obsolete in many ways. They have to be designed in a new way. But, as markets are now involved, the timing of such new organizations is important. Images, market products are the results of a long time process and worldwide competition develop every day the costs of being the « fournisseur du client-roi ».
The food chain:

Consumers
Food-Distribution
Food-Industry
First-Processing
Farms
Input-Distribution
Input-Industry

Arbitrage power
Product power
Political power
Technological power
Second World Bank EU Accession Workshop in the Rural Sector

Structural Change in the Farming Sectors of Central and Eastern Europe: Lessons and Implications for EU Accession

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