
In the World - In der Welt

En el mundo - Dans le monde



THE DEVELOPMENT IN REAL MARKETS (TRADE, AGRICULTURE)

*Dr. Carsten Struve,
Assistant to the Executive Management
Department Market and Environment – Agricultural Cooperatives
German Raiffeisen Federation, reg. assoc. (DRV)
Bonn/Germany*

Although agriculture, representing a share of 4% of the gross world product according to the International Monetary Fund, has an economic output approximating that of Italy alone and generates no more than 2% of the gross national product in any given country of the developed world, 40% of the gainfully employed population is currently working in this sector worldwide.

It plays an even greater role if the food-producing industry is taken into account as well. Food products, i.e. processed agricultural goods, meet a basic need, and therefore the supply of qualitatively adequate products is a politically sensitive issue.

In periods of inexpensive fossil sources of energy, agricultural sales are limited to the food-producing markets unless political intervention creates a market for them to be used as regenerative raw materials. Owing to the current support for regenerative raw materials, agriculture is in the process of changing radically worldwide with resultant adjustments in the up- and downstream areas of production.

A use of regenerative raw materials to any significant degree creates additional demand which can only be met at higher agricultural prices or with the use of additional land. Unless society is prepared to increase the amount of land used for agricultural purposes, food products will become more expensive. Potential land will be available either because of discontinued set-aside programmes or more extensive farming of existing land or in natural areas.

The flow of goods will change and volatility increase in line with the energy markets. Generally, the rural areas will become economically stronger and agriculture will again play a more important role in the national economy.

Even though agricultural markets are protected all over the world, agricultural trade has already been liberalized considerably by the WTO. Liberalization has resulted in stronger links between agricultural sectors across continents.

Policies in support of regenerative raw



materials on the part of the industrialized world, which consumes a major share of world energy, will leave a strong mark on global agricultural markets. In the developing countries, higher prices might function as an incentive to increase food production.

The food retail industry is undergoing a major process of concentration. Large retailers sell a product under their own brand, although it is supplied by various suppliers. A product of poor quality would damage the retailer's reputation in such a case. Concentration, changes in consumer preferences and new technical possibilities have triggered a trend towards quality assurance systems with which to trace the origin of products to a large extent.

This paper will explore these developments in greater detail. After having differentiated between products for the purpose of this paper, I will describe the agricultural and food sectors, emphasizing the important role of cooperatives in this context. In conclusion, future prospects and challenges will be enumerated.

The function and importance of agricultural products and markets

Agricultural products can be used in many and diverse ways, but have some specific characteristics that need to be understood in order to be able to explain developments in this sector. By way of introduction, these

characteristics will be described and referred to again at a later stage.

Generally speaking, agricultural produce can be used as food for human consumption, animal consumption or as regenerative raw materials for the energy sector. The existing relationship between these three functions implies a corresponding market interdependence. Therefore any description of the agricultural sector and its future must, of necessity, refer to the demand for energy and for human food and animal feeds.

Food products in demand can be subdivided into plant and animal-based products. Animal-based products produced on the basis of grain – mainly pork and poultry meat – reduce the amount of energetic input for human nutrition because of the loss of energy needed to maintain the livestock.

When prices are high and incomes low, less meat-based food may be substituted and the same size of land may feed more people as a result.

When plants are used as raw materials for energy, the plant starch is often the only ingredient used so that the remaining protein component may be fed to animals. New trade flows of feed components are developing in competition with food production; they cannot be directly attributed to the primary use of plants, but only be explained when all components have been considered.

In the World - In der Welt

En el mundo - Dans le monde



Many products offer value density of a kind that makes global trade profitable. Even if it is not the fresh product but the processed form which is traded – as in the case of milk –international contexts must be taken into account in view of liberalized markets.

Agricultural markets should not be analyzed on the assumption of a closed economy. Owing to the scarcity of the factor land, even products which are not traded internationally are affected by global developments because the amount of land available for agricultural purposes cannot be augmented in the short term.

In consequence, globally increasing grain prices also push up the price of milk because otherwise dairy farms would use the pasture land for other purposes and thus restrict the supply of milk until a new balance has been stricken.

Even in the longer term, the amount of land available for agriculture cannot be changed unless we interfere with nature on a massive scale. Production dependent on land use can only be considerably expanded if other forms of land use decline. In addition, water is increasingly being identified as a yield-restricting factor. Irrigation is not always profitable or socially desirable.

Agricultural goods are not homogeneous. Their demand does not depend on objective product quality alone, but considerations of process quality, for instance animal

protection, affect the decision to buy as well. Such features are documented by using certificates or seals.

Furthermore, consumers may not necessarily be able to establish whether a product has the desired quality unless they consume it. In consequence, agricultural goods – as experience or trust-based goods – are marketed with additional information and quality assurance systems for the purpose of minimizing deficiencies in the process chain and removing the products quickly from the chain in the event of retrospective findings.

In Germany, the QS system developed by those involved in the value-added chain is used extensively to this end; it aims to ensure a transparent process chain and clear traceability of origin.

German cooperatives and the German Raiffeisen Federation have made a pivotal contribution to the development of this quality assurance system. Consumers obtain unbiased information about the products concerned by means of a quality seal.

The application of genetic engineering is a special aspect affecting the heterogeneous nature of agricultural products. Zero tolerance applies to non-licensed constructs in the EU. If the absence of non-licensed constructs cannot be proved, the products will not be imported. The European licensing process is slower than that in the



main soybean and maize cultivation areas with the result of a decline in potential imports when the area under cultivation increases worldwide.

Price quotations will become less transparent in the process since listed quotations may not necessarily come in a quality which is demanded locally. For example, if the price of maize is lower in the USA than in Brazil, the purchase will not automatically be made in the USA if only Brazil is able to supply non-labelled goods.

More extensive application of the procedure will increase pressure on Europe to speed up the testing and licensing procedure.

Finally, products are expected to meet ethical norms regarding the protection of the environment and animals on the one hand and the way in which they are used on the other.

To use wheat as fuel while people are starving will not go without critical comment, while there is less criticism about trees planted on farmable land, although the resultant differences in food supply may be the same.

In view of the strong political dependence – some 30% of farmers' earnings in the EU and 20% of those in the USA are based on government transfer payments according to the OECD – long-term corporate strategies cannot be defined in disregard of political

developments if enterprises are to operate profitably. Long-term decisions should therefore be taken not only in response to market signals but on the basis of assumptions regarding future policy developments.

In other words, enterprises in the agricultural sector are dealing with products of a heterogeneous nature, both objectively and subjectively, in global markets which are influenced by politics to varying degrees.

Overview of the agricultural and food sector in Germany, the EU and across the world

A short overview of the structure of agriculture cannot furnish a detailed picture since owing to different legal forms of enterprises and products it would be difficult to compare ratios such as work and capital intensity.

While more capital and labour are tied up for livestock husbandry, viticulture and vegetable cultivation per hectare, they also give a better income per unit area. In other words, no direct relationship can be assumed between the average size of farms and the profitability of the sector.

It is interesting to compare the development of labour. 25 years ago, in 1982, more than 50% of the working population worldwide worked in agriculture, while in 2005 the figure had gone down to 43%. In the current

In the World - In der Welt

En el mundo - Dans le monde



member States of the EU the percentage has declined from 13% to 5.6% and in Germany from 6.3% to 1.9%. The greater the level of industrialization, the greater the relative decline of the sector.

It is economically less attractive for smaller farms to introduce state-of-the-art technology so that in the absence of structural development in favour of larger farms inefficiency will increase. India, in particular, with its heritage laws based on the partition of estates, has seen a growing population and increasing purchasing power, while farms are decreasing in size.

On the territory of the EU-27, slightly less than 15m farms existed in 2005, of which 2% farmed an area larger than 100 ha. In Germany, 390,000 farms existed, of which some 8% farmed an area of more than 100 ha. In terms of land area, approximately half in both the EU and in Germany is farmed by farms larger than 100 ha. This varies greatly in the EU, though.

Many large farms exist in the east and, in contrast, many small ones in the south. There are historical reasons for this which have to do with to the farming structure and the legal forms. Wine, fruit, and vegetable - the typical produce of the south - generate an adequate income even on farms with little land area, while in the east legal entities have often taken over the large, and formerly communist, farms that are nowadays run by several families.

Current state and development of the demand structure in Germany

In Germany, 145bn Euros in total were spent on food in 2006, of which 73% was marketed by the five largest retailers. Over time, the level of concentration has been rising and will continue to do so. In addition to this process of concentration with resultant fewer enterprises, the range of products has been changing in favour of premium and brand products. The sales of other producer-specific brands are constantly decreasing. Such a development calls for consistent quality assurance systems since the brand owner is obliged to refund any damage caused by quality problems as well as accept a sudden drop in demand.

In the case of dealer's brands, the retailer is liable for any product deficiency and will try to prevent it for the sake of maintaining a good reputation by requesting quality assurance systems. Furthermore, the spread of discounter markets and their dealer's brands forces producers into a position of being interchangeable as suppliers and excluded from the process of determining prices unless they have sufficient market power themselves. Otherwise, prices will go up only if new markets are opened up elsewhere.

On a global scale, a rising demand for food can be expected. Approximately one third of the world population is living in India and



China, but they produce no more than 8% of economic output worldwide. Nevertheless these emerging countries register a substantial economic growth with resultant higher incomes overall. More people are therefore able to buy more and qualitatively better food products; this, in turn, enables poorer sections to exert sufficient political pressure in order to obtain subsidized food products.

The two countries will be able to afford this. Owing to the inelastic demand for food products in the industrial countries, increasing prices will not lead to a substantial drop in quantities demanded. Poorer countries with a large percentage of workers in non-agricultural sectors might become politically less stable unless they are able to supply the poorer sections of the population with an adequate amount of food for subsistence.

Price developments of agricultural products will become highly dependent on both the oil price and political support for renewables in the industrial countries.

Owing to the substances they contain, grain and energy-producing plants may be used for the purpose of generating energy. This option will be extensively used if they are directly competitive as a result of high oil prices – as in the case of sugar cane in Brazil used as raw material for fuel production – or if political decisions regulate the market.

European targets for the fuel market are set at 5.75% energy from renewables as from 2010. Considering a purely Europe-based production of the underlying raw material, such targets would absorb the entire rapeseed harvest for biodiesel and some 25% of the wheat harvest on top. At current harvest levels, the US target of selling 1.3bn hectoliters of ethanol would convert the world's largest exporter of maize into a net importer with 50% of the harvest being absorbed by fuel production.

The support for renewables stems from efforts to address climate change and attempts to become more independent of energy imports. This development is driven, in particular, by the large energy exporters' instability.

The increase of grain prices by almost 100% from 2005 harvest year to 2007 harvest year reflects not only the small stock of products but an anticipation of more profitable markets for food and energy in future. The wheat price as a benchmark will affect the entire price level in agriculture.

How world trade negotiations affect the farming business

In November 2001, WTO member States agreed to initiate a new world trade round. No agreement has yet been reached, but the dismantling of trade-distorting instruments such as tariffs and export subsidies has been

In the World - In der Welt

En el mundo - Dans le monde



clearly defined as the ultimate goal.

Specifically, it is planned to improve market access to protected markets and to provide the developing world with new opportunities of development by offering them preferential treatment.

Although dairy produce and grain are currently being exported by the EU without export refunds, not all products from the EU are competitive worldwide in the longer term.

Effective import duties are in place for beef, milk and biogeneous fuel. If the Doha Round is concluded, prices in the EU would come under greater pressure if world market prices decline.

Further development of European Agricultural Policy

With its 2003 agricultural reform the EU has continued on the road towards less regulation in agriculture. Modifications are in the pipeline for 2008, which will bring up further the level of liberalization in agriculture. The remaining coupled payments are planned to be decoupled to a large extent and the EU Commission favours a phasing-out of the milk quota by 2015. Existing grain intervention systems will also come under discussion.

The discontinuation of milk quotas may cause shifts in milk production across Europe.

THE IMPORTANCE OF COOPERATIVES FOR AGRICULTURE

Agricultural trade and processing

Across all products, cooperatives supply about half of all purchased materials and services and products in agriculture. In 2006, commodity cooperatives collected and marketed approximately 15m t. grain, 2.6m t. rapeseed and more than 3m t. potatoes for human, industrial or fodder use. Cooperative dairy enterprises process some 20m t. milk annually, i.e. more than 70% of German fresh milk. Fruit, vegetable, horticultural and flower cooperatives marketed produce worth in excess of 2 bn Euros.

Winegrowers' cooperatives collect about one third of the harvest of German wine must each year. In 2006, they sold wine and sparkling wine worth some 800m Euros. The largest cooperative enterprises in Germany generate turnovers worth one-digit billions.

Total turnover amounted to 38 bn Euros in 2006 and was generated by 3188 enterprises with 88000 staff. There is a high level of concentration: the 90 enterprises with a turnover in excess of 50m Euros make up 6% of the enterprises, but generate 75% of turnover.



New requirements for cooperative banks

Financing is an important part of corporate development because financing by means of borrowed capital offers opportunities to grow rapidly and profitably. In the rural areas, cooperative banks are the mainstay of agricultural financing.

Short-term financing is often made available by commodity cooperatives for the purchase of farming inputs. Risk-covering insurances play an equally important part.

The following part of the paper describes new instruments which will be introduced in agriculture in the wake of greater price fluctuations, but will not be affordable unless the banks become involved.

Classically, fluctuating prices are hedged at commodity future exchanges. These exchanges function because, among other things, initial margins paid ensure execution of contract or repurchase even if the spot market price at due date deviates from the price fixed in advance at the futures exchange.

When prices fluctuate against the hedged amounts, i.e. if the spot price increases from the seller's or decreases from the buyer's point of view, additional margins need to be paid almost immediately; in many instances, only banks can handle this.

In other words, this option is available to

businesses only if their house bank is willing to guarantee liquidity in the interim. A good case in point is a contract for potatoes to be processed for which price fluctuations of 25 Euros per dt have been observed now and then. In such a case, additional 6250 Euros need to be paid up per contract. As one contract normally corresponds to one hectare of farmed land, this would add up to approximately 90 000 Euros additional margins for 15 hectares.

Although the increased value of the potatoes results in a higher value of the commodity as well, such profits can only be realized at a later date; this calls for inexpensive and reliable interim financing.

Future prospects of rural cooperatives

Irrespective of price developments, further growth of agricultural enterprises and food retailers can be expected.

Primary cooperatives will have to grow accordingly in order to be able to fulfil their function of producing marketable, homogeneous quantities.

The German dairy industry, in particular, should utilize existing capacities to a greater extent. From the DRV's point of view, it is absolutely indispensable to use economies of scale given increasingly more liberalized markets. Yet this does not entail reduced product diversity.

In the World - In der Welt

En el mundo - Dans le monde



The trend towards supplying information about process quality together with the product and using quality assurance systems will continue with declining costs of implementation. In general terms,

agriculture will produce more and more intensively as long as the use as energy raw material is profitable. Good prospects for purchased materials and services and plant-production equipment will ensue.

