Agriculture under the conditions of globalisation focussed on the expansion of the EU

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Abstract: Agriculture ensures the physical existence of the population and it creates a fund of basic foodstuffs. In addition, it produces non-food commodities as well as being a region forming and political element. It fulfils the function of an internal political stabilising factor and it is a requirement for an overall, balanced, development. The article puts into context: global agriculture; agricultural production within the expanded EU, which is developing under the conditions of the integrated Common Agricultural Policy. It also draws attention to the current trends characteristic of agriculture within the EU. Emphasis is also put on how the Common Agricultural Policy (CAP) is perceived, as well as its consequences for the agrarian production and the position of the EU in the international trade of agricultural products.

Key words: agriculture, globalisation, European Union, plant production, animal husbandry, foreign trade

Agricultural production is one of the branches of production whose final results come from the society immediate effect on nature. A specific quality of agriculture is its productive and non-productive function. Its basic productive orientation consists of growing useful plants and breeding of domestic animals; whose products are used in the food chain of the world population; alternatively, they are used for feeding or undergo a further industrial processing.

Whilst agriculture ensures the physical existence of the population, and creates the fund of basic foodstuffs, we should not forget its region forming, or political function. Its role as a supplier of non-food commodities, however, is relatively weakening as it meets with the enormous competition presented by the chemical industry; especially; as it produces materials which replace the traditional natural resources. Often this production is also cheaper and it shows that the synthetic, or other industrial materials cannot completely replace agricultural ingredients (Vošta 2010).

The proportion of economically active inhabitants is one of the basic indicators of the level of development of the economy of the given country. One sign of a developed economy is the decreasing number of inhabitants working in the agricultural sector, which is in contrast with the numbers working in other economic sectors, mainly in services. Agriculture also serves as a stabiliser for the internal political equilibrium, and from the point of view of the foodstuff production, it can be said to be a branch with an important social function.

The development of the concentration of demand for agricultural products influences the localisation of agricultural production in different spatial dimensions. Agriculture develops more slowly than industrial production; its absolute volume of production, however, grows. This slower pace of development causes a lower average of labour productivity, as well as very strong links to the physical-geographical conditions. Agriculture respects certain rhythms of natural actualities, and has a substantially less control over the external environment. In particular, the natural quality of the soil and climatic conditions are the principle localisation factors in the individual branches of agriculture. In reality, it can mean that the growth of input into the production is not necessarily reflected in the growth of the pace of development.

Agriculture plays an important role of an internal political stabilising factor and it is a requirement for overall balanced development. In developed states, agriculture is a supply branch, while in developing countries, especially those burdened by the population pressures, it is a demand branch, which has problems satisfying the basic foodstuff needs. In developing countries, agriculture is also one of the internal sources of industrialisation, for which it creates the necessary accumulation of means.

Agriculture is a significant world employer. Currently, according to the FAO statistics, there work 3.3 billion people in agriculture. This represents 39.9% of the economically active population of the world. The number of economically active inhabit-
ants employed in agriculture is one of the indicators of the level of economic development of the state. While in developed countries the number of economically active inhabitants employed in agriculture is, in average, 4.2%; in developing regions, the number reaches an average of almost 50%. At the same time, the differences between the individual countries in both groups are marked. In developed countries, the direct employment in agricultural production is decreasing, but still more people work for agriculture in industry and in the service sector (FAO 2011).

The indicator of quality of agricultural products is the ratio between the plant and animal products, or, rather, their share in the value of agricultural production. The prevalence of animal husbandry over plant production is a sign of a developed agriculture. Developed agriculture, unlike the backward agriculture, uses a modern feed base and a high level of productivity of domestic animals.

**Agriculture Under Conditions of Globalisation**

Globalisation is, apparently, a lawful socioeconomic process, which has an impact on all spheres of human activity. It concerns complex phenomena, or a complex collection of the mutually joined processes. According to the IMF definition, it is a process for which there is characteristic the ever increasing free movement of ideas, people, products, services and capital, which leads to the integration of economies and human societies. There exist various definitions and concepts of globalisation. Regardless of the direction, everyone recognises the fact that it is necessary to link globalisation with the latest growth in the worldwide interdependence. Other views on the issue of globalisation are, however, different (Jeníček 2010a).

The process of globalisation even reaches into agricultural production, where the situation is different from other branches of the world economy. Technological progress makes a high profitability possible. However, working with living organisms, and the primary production factor being the quality of the soil, with its immobility, non-reproductability and geographical location, still influences the final results of the production. Agriculture is, on the global scale, the most variable, not only in the economic sense, but also thanks to the differences in the natural conditions which agriculture, thanks to its global location, must respect. Marked territorial changes are also connected with this activity.

A significant element which influences the placement of agricultural production and the spatial dimensions of the individual agrarian branches, is the population as the concentration of consumers. The influence of the concentration of demand and consumption is expanding in the global scale, and it is connected with the process of urbanisation. This fact brings the negative effect of a drop in the number of rural inhabitants and their ability to supply themselves with the basic foodstuffs. The practical impact is the ever greater concentration of consumption in a smaller space and the territorial dispersal of agricultural production. The consequence of the growth of the concentration of consumption of agricultural products in the setting of big town agglomerations was the development of the so-called urban agriculture. This focuses purely on the supply of agricultural products with the minimum of industrial processing. Usually, the production of early vegetables, poultry, eggs and milk are located in the proximity of towns (Jeníček 2010b).

A typical feature of the globalisation process in agriculture is the connection of still more distant areas to the supply of consumption regions, which facilitates the development of transportation and storage technology. The comparative advantages of these supply areas are the pleasant natural conditions and a sufficient supply of cheap labour, which evens out the distance from the market. Products, which until recently were usual for urban agriculture, are currently becoming more and more part of the international trade and are asserting themselves in the global dimensions. The concentration of demand, and the increase in the size of the consumer market, have created and stabilised the main supply areas. This trend has expanded from those products which had no great significance as food, to tropical fruit, snack items, basic foodstuffs and agricultural commodities for industrial use.

Another sign of the increasing market is the linking of natural conditions to the production capacity of the world agriculture and the creation of the basis for globalisation, which also manifests itself in important territorial changes. The basic feature of territorial structures is the separation of consumer areas from the production and supply areas, which is taking place to a still greater extent. A clear demarcation of supply areas led to a greater deepening of the division of labour, and the specialisation of agricultural production, and so to the equilibrium of market production in the global dimension (Cihelková and Hnát 2008).

The process of globalisation in agricultural production is closely linked with the development of transportation, whose significance grows in connection with the shipping of those commodities which are very demanding in the terms of transport conditions,
so that their nutritional or industrial value does not diminish. Transportation, especially, enabled the creation of the basic model for the localisation of agricultural products; the separation of production and consumer areas. Agriculture, at the same time, has become a supply branch and the natural conditions advantageous for agriculture have become globally usable. In addition to the localisation changes, the development of transportation and new technology; e.g., refrigeration technology and the fundamental structural changes in the specific production areas; have enabled the movement of specialised agricultural commodities.

Measures taken by the state, or other institutions of an economic, or political, nature, could have an ambivalent effect on globalisation. Customs protection of certain crops within the framework of trade policy facilitates the protection of agricultural commodities against competition, and it supports growing of some types of crops in certain areas. Conversely, foreign competition could force the domestic agrarian production out of the traditional growing areas. Trade policy, carried out on the basis of international agreements concluded by the supranational organisations, call for a strict adherence to export quotas.

State intervention as a means of supporting certain cultures is mostly allied with economic support for the agriculturally failing areas. Ensuring sufficient amounts of foodstuffs for the inhabitants of Western Europe was the decisive reason for the creation of integrated agriculture in Europe. Another reason was the backwardness of European agriculture in relation to agrarian production in the USA and other countries after the Second World War. The prime objective of the integrated agriculture in Western Europe was the increase of the productivity of labour, which should boost the competitiveness of European farmers in the world. The formation of the CAP can be seen at many levels. On the one hand, it is about the positive influence in the area of the increase of agricultural production, as well as the positive influence on the development of the agricultural sector, stabilisation of the economic situation in the countryside and securing an adequate standard of living for that section of the population engaged in agriculture. On the other hand, it is necessary to see this policy development as a great burden on the EU budget (Abrhám 2011).

The integration of European agriculture in the form of the CAP was one of the aims of the EEC in the 1950s. This corresponded even to the political aim of the EEC. Decisively, the target was a sufficient production and quality of agricultural commodities, as well as the creation of an efficiently functioning branch, which would increase the living standard of rural dwellers. Agricultural policy contributed to farmers by giving them subsidies, which helped to increase production. In addition to ensuring the agricultural self-sufficiency, the aim of the EEC was, from the beginning, the regulation of prices of agricultural products. A fundamental decision was price support, when farmers got guaranteed prices for their products as long as they do not go below a certain level (Abrhám 2008).

AGRICULTURE IN THE EU

Agriculture in the EU also fulfils various functions concerning the production of foodstuffs, technical crops, cultivation of the countryside as well as increasing the opportunities for using it within the framework of tourism. European agriculture is a prime exporter, and the greatest importer, of foodstuffs. The European agrarian sector uses mainly safe and clean methods of production which preserve the environment, and the EU agriculture sector serves the rural community. Its purpose is not only to grow agricultural crops, but also to safeguard the quality of the countryside and the lives of its inhabitants.

Most of the territory of the EU is covered by forests and agricultural land, which greatly influences the rural economy and landscape. Agriculture is the main employer of the rural population. The greater number of farms consist of small, family run operations. They play an important role in the employment, as well as in the formation of the environment and the life of the countryside. The total number of people employed in agriculture in 2007 was 11.7 million; with 9 million of them working in commercial farms. The share of people working in agriculture comes to 2.4% of the EU’s population, which means 5% of the total labour force. The continuing trend is a long term drop in the number of farm workers. Agriculture still remains a family branch; 78% of agricultural employees were farm owners or their family members. A different structure is characteristic of Slovakia and the Czech Republic, where the share of family workers is substantially lower (in the CR it is 27%) (UZEI 2010). A total of about 40% of people engaged in agriculture work on small farms (farms with an economic size under 1 ESU1) (Martins and Tosstorff 2011). The agricultural sector in the EU also outlines the typical features of the

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1ESU – The European Size Unit is a unit used to measure the standard gross margin (SGM). 1 ESU is equivalent to 1.5 hectares of wheat.
demographic structure of workers. Roughly a third of those regularly employed in agriculture are women. In the Baltic republics, this number comes to about 50%. An important characteristic is the fairly advanced age of farm owners. Only 6% of farmers are less than 35 years old; indeed, 34% of them are over 65 years old.

Structure of farms

The total area covered by agricultural land in the EU in 2010 was 172 million hectares, which is about 200 million less than in the USA. One quarter of the territory of the EU is covered by arable land; one fifth by pasture land, with 40% covered by forests. Overall, the EU uses 40% of its land for agriculture and 30% is devoted to forestry. In 2007, there were 13.4 million farms in the EU, the greatest number of them being in Italy (19%). The other big farming countries were: Poland (15%), Spain (13%) and Romania (12%). Over 7 million farms were oriented on economic activities, with 6.5 million of them being small farms; half of which are in Romania. The ongoing trend is a reduction in the number of farms. In the period 2003–2007, their number dropped by about 9%. At the same time, the structure of farms changed. The number of small farms decreased during the period under examination by 10%, and there was an increase in the number of farms larger than 100 ESU. A similar trend has been noted in the agricultural sector of the USA.

In comparison with American farms, European farms are much smaller. The average area covered by one European farm (EU 27) was 13.8 ha in 2007; in the USA, it was 169 ha. The expansion of the EU to the states of Eastern Europe, where most of the small farms are, influenced the diminishing average area covered by European farms. According to the Eurostat classification, European farms are divided into small farms – their total area makes up 80% of the total agricultural land, and big farms, which occupy the remaining 20% of the countries agricultural land. Overall, in the EU, only 0.6% of farms fall into the big farm category; i.e., 86,125 farms (Eurostat 2010a, 2010b).

Agricultural production

European agricultural production is very wide ranging, and it is typified by its ability to produce, in sufficient quantities, almost all the most important agricultural products. As regards some of these products, Europe is a world producer (grapes, olive oil, meat); others, it must import. Incentives arising from the CAP have led to, since the 1960’s, a large growth in the production of foodstuffs. European agricultural self-sufficiency has increased, with a marked growth in the volume of production. In addition to the rapid growth in production, as well as an increase in food safety, there has also been a surplus of some agricultural products. This surplus has been dealt with by a series of political measures during the 1980s and 1990s, when quotas were firmly set for the production of milk, with sanctions in place for exceeding them. There were also limits set on the number of cattle for which farmers could apply for subsidies. Reforms carried out on the CAP in the 1990s, and aimed at lowering the price difference between the EU and the rest of the world, and the results of the WTO agricultural agreements, limited the use of export subsidies.

Plant production

The most widespread crops in the EU are cereals (about 16% of the total agricultural production), followed by root crops and oil plants. The choice of the individual types of crops is dependent on the different climatic conditions in each state. The total value of plant production in 2009 came to 187.5 billion Euros. Cereal production has grown sharply since 2008, from the point of view of the advantageous climatic conditions and the high price of cereals. The most common cereal, by the volume of production, is wheat, followed by barley and corn. Rye and rice production is weaker. Traditionally, the greatest cereal growing states are France and Germany.

The production of feed crops for cattle is in second position. Besides cereals, we are talking about the production of sugar beet, rapeseed, peas and sunflower. At the same time, there has been growth in the production of fruit and vegetables. The main producers of wheat are France, Germany, Great Britain and Poland. The aforementioned four countries account for 60% of wheat production in the EU. The most important barley growing countries are Spain, France and Germany. The largest corn growing areas are in France and Italy. It may be stated that France holds the leading position in the EU cereal production (as well as in plant production); it accounts for

<table>
<thead>
<tr>
<th>Cereals</th>
<th>Wheat</th>
<th>Barley</th>
<th>Corn</th>
<th>Rye</th>
<th>Oats</th>
</tr>
</thead>
<tbody>
<tr>
<td>EU 27</td>
<td>12.0</td>
<td>20.3</td>
<td>40.8</td>
<td>7.1</td>
<td>54.4</td>
</tr>
</tbody>
</table>

almost one quarter of the EU cereal production. The EU plays a critical role in cereal production within the global context. The EU agriculture accounts for 12.5% of the world cereal production, which means that the EU share in the world production is 25%. Rye has an even greater share (53%). The EU grows 43% of the world barley (Table 1).

Rapeseed, sunflower and olives are the most important oil bearing plants grown in the EU. The volume of rapeseed grown in recent years has increased thanks to the greater amounts of biodiesel produced. Rapeseed is grown mostly in Germany, France, Great Britain and Poland. Southern Europe concentrates on the growth of olives. Half the olives are grown in Spain and the rest in Greece and Italy. France and Hungary dominate the production of sunflower. The main European oil bearing plants do not have a significant position in the context of the world production. The EU produces 40% of the world rapeseed. However, the EU has the dominant position in olive growing, where it accounts for 70% of the world production. Another important group are the root crops. Potatoes and sugar beet play a key role. Potatoes are an important part of the European food culture, and sugar beet, in the temperate climatic zone, is of great importance for the production of sugar. The growing of both crops is geographically covered, and the most important producing states are France, Germany and Poland. Although the EU grows almost half the world sugar beet, its total production of plants which are used in the production of sugar is much lower. The amount of the main plant used in sugar production, sugar cane, grown in Europe, is negligible. The EU is the most important wine growing region in the world. Almost 30 million tons of grapes grown there per year represent almost 40% of the world production.

The main production area is the Mediterranean, with Italy, France and Spain holding the dominant position (Table 2).

### Table 2. The EU share of the production of selected crops, in % (2009)

<table>
<thead>
<tr>
<th></th>
<th>Rapeseed</th>
<th>Olives</th>
<th>Sunflowers</th>
<th>Potatoes</th>
<th>Sugar Beet</th>
<th>Grapes</th>
</tr>
</thead>
<tbody>
<tr>
<td>EU 27</td>
<td>34.7</td>
<td>70.0</td>
<td>21.5</td>
<td>19.0</td>
<td>50.1</td>
<td>37.2</td>
</tr>
</tbody>
</table>


### Animal husbandry

Animal husbandry is oriented on the production of pork and beef, followed by mutton and goat. In 2009, animal husbandry was worth 139.2 billion Euros to the EU. It is interesting that while in Western Europe the consumption of beef has remained constant, in the new member states it has been decreasing since the 1990s. The EU production share is under 10%, with the greatest producers being France, Germany and Italy. According the amount consumed, the favourite meat is pork, of which the EU produces 20% of the world share. The biggest European producers are Germany, Spain and Poland. As regards poultry production, chicken are in the leading position. The EU produces 12% of the world’s supply, with the United Kingdom the largest producer of poultry (Table 3).

### The EU foreign trade in agricultural products

The EU is an important player in international trade with agricultural products. It is the largest importer, and the second largest exporter, of agricultural products. In comparison with the USA, Canada or Australia, we can talk about a big deficit in agricultural trade, and a lower number of agricultural products as a part of the overall exports, which indicates a lower competitiveness and more expensive food items in the world markets. The EU plays an important role in the agricultural products market, and at the same time, it has an important position in the conclusion of trade agreements within the framework of the WTO. It also participates in the negotiations and conclusion of the trade agreements with third countries and the free trade agreements with developing countries, to whom it provides a preferential access to the EU market.

The EU foreign trade in agricultural products has been marked, of late, by a notable dynamism. In the period 1995–2007, the volume of trade in agricultural products increased by 60%. Both import and export have undergone growth. However, the EU is affected by a constant deficit in the balance of trade in agriculture. In 2010, though, the EU had a surplus of 6 billion Euros in its balance of trade in agricultural products. In the recent years, the balance of the trade in agricultural products could...
be characterised in the following way. The consequences of the global economic crisis and recession can be followed in the development of foreign trade in agricultural products in the EU, the same as in the USA. In the period 2007–2008, we can see a large growth in exports (from 78 to 85 billion Euros), and also imports (from 79 to 90 billion Euros). A drop in imports and exports to the 2007 level was characteristic. The economic revival in 2010 was in the form of the growth in exports by 14% and imports by 9% (Table 4).

### Export of agricultural products

The EU member states exported agricultural goods worth 90 billion Euro to the countries outside the EU. The EU main export destinations were the USA, Russia, Switzerland, Japan and China. The most important agricultural market for the EU was the USA, where the EU sent 15% of its exports. The USA sent 7.7% of its agricultural exports to the EU in 2010 (European Commission 2010). The main commodities exported from the EU are beverages, which make up one quarter of the EU total agricultural exports. In 2009, the EU exported 15.4 billion Euros worth of beverages. Remarkably, beverages are even supplied to the EU member states as the main consumers. Exports to the USA mostly consist of spirits, wine and beer. Other main commodities exported by the EU are cereals and products derived from them, fruit, vegetables, meat and dairy products.

### Import of agricultural products

The EU imported 84 billion Euros worth of agricultural products from third countries. In 2010, the EU imported mainly from the following countries: Brazil, the USA, Argentina, Switzerland and China. The import of agricultural products is marked by lower concentrations from the point of view of the origin of individual products in the individual states. Brazil is the biggest exporter of agricultural products to the EU. It exported animal feedstuff, beef, tobacco and fruit worth the total of 12 billion Euros to the EU in 2009 (European Commission 2010). As has been stated above, the import of agricultural products to the EU is less concentrated, when compared, for instance, to the import of agricultural products to the USA. Exports of agricultural products to the USA come mainly from: Canada (20%), the EU (17.5%) and Mexico (16.5%). The most important agricultural commodities imported to the EU are: coffee, tea, fruit, vegetables, oil plants and fish. These items comprise the majority of agricultural imports to the EU. In 2009 the import of fruit and nuts had the highest value, coming to the total of 11.9 million Euros. For comparison, the USA imported the most beverages and tobacco (11 million Euros in total) (European Commission 2010) (Table 5).

### CONCLUSIONS

Agriculture ensures the physical existence of the population, as well as making up the basic foodstuff fund. There should also be borne in mind its region creation and political functions. The number of economically active inhabitants is one of the basic indicators of the level of development of a country’s economy. One sign of a developed economy is the decreasing number of inhabitants working in agricul-

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**Table 4. Development of foreign trade in agricultural products in the EU (in bill. Euro)**

<table>
<thead>
<tr>
<th>Year</th>
<th>Export</th>
<th>Import</th>
<th>Balance</th>
</tr>
</thead>
<tbody>
<tr>
<td>2004</td>
<td>57.8</td>
<td>60.3</td>
<td>–2.5</td>
</tr>
<tr>
<td>2005</td>
<td>64.0</td>
<td>64.0</td>
<td>0.0</td>
</tr>
<tr>
<td>2006</td>
<td>72.3</td>
<td>67.7</td>
<td>4.6</td>
</tr>
<tr>
<td>2007</td>
<td>78.0</td>
<td>78.7</td>
<td>–0.7</td>
</tr>
<tr>
<td>2008</td>
<td>85.0</td>
<td>90.2</td>
<td>–5.2</td>
</tr>
<tr>
<td>2009</td>
<td>78.5</td>
<td>79.4</td>
<td>–0.9</td>
</tr>
<tr>
<td>2010</td>
<td>90.0</td>
<td>84.0</td>
<td>6.0</td>
</tr>
</tbody>
</table>


**Table 5. Territorial structure of the EU imports and exports of agricultural products (2009)**

<table>
<thead>
<tr>
<th>Exports from the EU</th>
<th>% Import to the EU</th>
</tr>
</thead>
<tbody>
<tr>
<td>USA</td>
<td>15.0 Brazil</td>
</tr>
<tr>
<td>Russia</td>
<td>8.9 USA</td>
</tr>
<tr>
<td>Switzerland</td>
<td>7.1 Argentina</td>
</tr>
<tr>
<td>Japan</td>
<td>5.0 Switzerland</td>
</tr>
<tr>
<td>Norway</td>
<td>3.4 China</td>
</tr>
<tr>
<td>China</td>
<td>2.8 Turkey</td>
</tr>
<tr>
<td>Hong Kong</td>
<td>2.7 Indonesia</td>
</tr>
<tr>
<td>Canada</td>
<td>2.6 Ivory Coast</td>
</tr>
<tr>
<td>Algeria</td>
<td>2.3 Chile</td>
</tr>
<tr>
<td>Turkey</td>
<td>2.3 New Zealand</td>
</tr>
</tbody>
</table>

Source: Agriculture in the EU, Statistical and Economic Information Report 2010, own calculations
Agricultural production. Agriculture also fulfils the function of an important internal political factor of stabilisation and it is a requirement for the overall balanced development. A typical phenomenon of the process of globalisation in agriculture is the participation of ever more distant areas in the supply of the consumer regions, which enables the development of transportation and storage technology. Measures taken by the state or other institutions, which are of an economic or political nature, could have an ambivalent effect on globalisation. The decisive reason for the creation of integrated agriculture in Europe was to ensure a sufficient amount of food for the inhabitants of Western Europe. The basic goal of integrated agriculture was to increase the productivity of labour, which should boost the competitiveness of European farmers in the world. The Common Agricultural Policy (CAP) contributed to the integration of European agriculture. Its main objective was a sufficient production and quality of agricultural commodities, along with the creation of an efficiently functioning branch which would increase the standard of living of the population in rural areas. European agriculture also fulfils various functions concerning the production of foodstuffs, technical crops, the cultivation of the regions as well as increasing the possibilities for using them in tourism. Agriculture in the EU is a prime exporter, and the biggest world importer, of foodstuffs. A continuing trend is the long term decrease in the numbers of people working on farms, and a drop in the number of farms. Farming still remains a family branch. A significant sign of agriculture is the fairly advanced age of farm owners. European agricultural production is very wide ranging, and a typical feature of it is its ability to turn out, in sufficient quantities, almost all the most important agricultural products. The EU is certainly the world producer of some agricultural products. In agriculture, the EU pays a greater attention to the new member states, especially, and to the changes connected with the expansion of the agricultural space of the EU. The main challenges for the next few years will be the improvement of the productivity of labour, modernisation of production methods, and the specialised economies in those countries.

REFERENCES


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